Journal of the American Ceramic Society

Including Advanced Ceramic Materials and Communications

VOLUME 86, 2003

Author Index

Numbers in parentheses refer to month of issue, following numbers are page numbers.

Abe, Hiroya; Naito, Makio; Hotta, Tadashi; Shinohara, Nobuhiro; and Uematsu, Keizo
Flaw Size Distribution in High-Quality Alumina. (6) 1019
Abe, Toshihiko See Zhang, Zhe-Feng
Abovyan, Eduward S. See Harutyunyan, Valeri S.
Adachi, Shinichi See Segawa, Hiyoro
Adachi, Tomohiko See Kondo, Hiroki
Agrawal, Archana See Sinha, Arvind
Agrawal, Dinesh K. See Brosnan, Kristen H.
Ahn, Jung Hyuck; Hong, Seong-Hyeon; Hwang, Nong-Moon; and Kim, Doh-Yeon
Characteristics of Liquid Penetration into Undoped and Magnesia-Doped Alumina. (12) 2206
Ahn, Jung Hyuck; Lee, Je-Hun; Hong, Seong-Hyeon; Hwang, Nong-Moon; and Kim, Doh-Yeon
Effect of the Liquid-Forming Additive Content on the Kinetics of Abnormal Grain Growth in Alumina. (8) 1421
Aivazyan, Ashoi P. See Harutyunyan, Valeri S.
Akyioshi, Mario M. See Innocentini, Murilo D. M.
Albertsen, Knuth See Opitz, Mathew R.
Aldica, Gh. See Scarlat, Oana
Aldinger, Fritz See Cai, Ye; Rozumek, Michael; Schneider, Judy
Aldon, Laurent See Soro, Nibambin
Alford, Neil McN. See Feteira, Antonio
Algueró, Miguel See Ricote, Jesús
Ali, Naseef J. See Nimmo, William
Almajid, Abdulhakim See Li, Jing-Feng
Altay, Arzu and Gülgün, Mehmet Ali
Microstructural Evolution of Calcium-Doped α-Alumina. (4) 623
Amin, Ahmed See Meyer, Richard J., Jr.
Ando, Kotoji See Kim, Young-Wook; Takahashi, Koji
Andreola, Fernanda; D'Arrigo, Maria Cristina; Leonelli, Cristina; Siligardi, Cristina; and Pellacani, Gian Carlo
Comparison of Various Solvent Media Efficiency in the Grinding of a Frit Containing Zirconium Oxide. (5) 864
Apetz, Rolf and Bruggen, Michel P. B. van
Transparent Alumina: A Light-Scattering Model. (3) 480
Apetz, Rolf See Krell, Andreas
Arai, Yasuhiko See Segawa, Hiyoro
Araki, Hiroshi See Yang, Wen
Armelao, Lidia See Martucci, Alessandro
Armstrong, Robin L. See Beyea, Steven D.
Asayama, Masahiro See Kondo, Naoki
Atkinson, Kurt J. W. See Harding, John H.
Aulbach, Emil See Zuo, Ruzhong
Avila, Gloria See Navarro, Melba
Awano, Masanobu See Matsuda, Kazuyuki; Fujishiro, Yoshinobu
Aytug, Tolga; Paranthaman, Mariappan P.; Kang, Byeongwon W.; Beach, David B.; Sathyamurthy, Srivatsan; Specht, Eliot D.; Lee, Dominic F.; Feenstra, Roeland; Goyal, Amit; Kroeger, Donald M.; Leonard, Keith J.; Martin, Patrick M.; and Christen, David K.
Reel-to-Reel Continuous Chemical Solution Deposition of Epitaxial Gd_2O_3 Buffer Layers on Biaxially Textured Metal Tapes for the Fabrication of $YBa_2Cu_3O_{7-\delta}$ Coated Conductors. (2) 257
Bae, Byoung-Chan; Park, Dong-Soo; Kim, Young-Wook; Kim, Wonjoong; Han, Byoung-Dong; Kim, Hai-Doo; and Park, Chan
Texture in Silicon Nitride Seeded with Silicon Nitride Whiskers of Different Sizes. (6) 1008
Bai, Guangzhao See Wang, Gang
Baik, Sunggi See Jung, Joonchul
Baker, Judith See Makovec, Darko
Balcom, Bruce J. See Beyea, Steven D.
Ball, Clifford J. See Vance, Eric R.
Balyan, Minas K. See Harutyunyan, Valeri S.
Bandyopadhyay, Amit See Darsell, Jens
Bansal, Narottam P. See Lee, Kang N.
Barba, A. See Escardino, A.
Barba, M. Flora See García, Ana M.
Barnett-Ritcey, Dwayne D. and Nicholson, Patrick S.
Failure Prediction Maps for a Model Al_2O_3|c-ZrO_2/Al_2O_3|Al_2O_3 Brittle Polycrystalline Trilayer Composite. (1) 121
Baudin, Carmen See Uribe, Rafael
Bauer, Arndt See Cai, Ye
Beach, David B. See Aytug, Tolga
Becerro, Ana I.; Naranjo, Moisés; Perdigón, Ana C.; and Trillo, José M.
Hydrothermal Chemistry of Silicates: Low-Temperature Synthesis of γ-Yttrium Disilicate. (9) 1592
Beerkens, Ruud G. C.
Sulfate Decomposition and Sodium Oxide Activity in Soda–Lime–Silica Glass Melts. (11) 1893
Beeson, James J. See Opitz, Mathew R.
Begg, Bruce D. See Vance, Eric R.
Bell, David See Sokolov, Sergey
Bellosi, Alida See Sciti, Diletta
Bellucci, Alessandra; Gozzi, Daniele; Kimura, Takashi; Noda, Tetsuji; and Otani, Shigeki
Auger Electron Spectroscopy Analysis of Cross-Section Surface of Oxidized Titanium Carbide Single Crystal. (12) 2116
Belmonte, Manuel; Silva, Vitor A.; Fernandes, Antonio José; Costa, Florinda; and Silva, Rui
Surface Pretreatments of Silicon Nitride for CVD Diamond Deposition. (5) 749
Beltrán, Hector See Masó, Nahum
Beltran, V. See Escardino, A.
Benco, L'ubomír; Hafner, Jürgen; Lenčéš, Zoltán; and Šajgalík, Pavol
Electronic Structure and Bulk Properties of β-SiAlONs. (7) 1162
Berjoan, Rene See Pascual, Maria J.
Bernardo, Enrico See Colombo, Paolo
Bernik, Slavko See Daneu, Nina
Beyea, Steven D.; Balcom, Bruce J.; Bremner, Theodore W.; Armstrong, Robin L.; and Grattan-Bellew, Patrick E.
Detection of Drying-Induced Microcracking in Cementitious Materials with Space-Resolved ^1H Nuclear Magnetic Resonance Relaxometry. (5) 800
Bhargava, Parag See Dhara, Santanu
Bhattacharyya, Debasish See Sinha, Arvind
Bi, Zhaoxia X.; Zhang, R.; Wang, X. S.; Gu, S. L.; Shen, B.; Shi, Y.; Liu, Z. G.; and Zheng, Y. D.
Synthesis of Zinc Aluminate Spinel Film through the Solid-Phase Reaction between Zinc Oxide Film and α-Alumina Substrate. (12) 2059
Biswas, Koushik See Schneider, Judy
Biswas, Sampad K. and Riley, Frank L.
Gas Pressure Sintering of Silicon Nitride Powder Coated with Al_2O_3 and TiO_2. (2) 212
Blanchart, Philippe See Soro, Nibambin
Blank, Paul See Krell, Andreas
Blasco, A. See Escardino, A.
Blendell, John E. See Hockey, Bernard J.; Park, Chan Woo; Park, Jong-Keuk
Blessing, Gerald V. See Lofaj, František
Boakye, Emmanuel E. See Keller, Kristin A.; Mogilevsky, Pavel
Boaro, Martha; Vohs, John M.; and Gorte, Raymond J.
Synthesis of Highly Porous Yttria-Stabilized Zirconia by Tape-Casting Methods. (3) 395
Boccaccini, Aldo R. and Pearce, David H.
Toughening of Glass by a Piezoelectric Secondary Phase. (1) 180
Bonk, Fábio; Schneider, José; Cincotto, Maria Alba; and Panepucci, Horácio
Characterization by Multinuclear High-Resolution NMR of Hydration Products in Activated Blast-Furnace Slag Pastes. (10) 1712
Bordia, Rajendra K. See Salamone, Samuel M.; Zuo, Ruzhong
Bose, Susmita and Saha, Susanta Kumar
Synthesis of Hydroxyapatite Nanopowders via Sucrose-Templated Sol–Gel Method. (6) 1055
Bose, Susmita See Darsell, Jens
Bowman, Keith J. See Xu, Huiwen
Boyer, Damien and Derby, Brian
Yttrium Silicate Powders Produced by the Sol–Gel Method. Structural and Thermal Characterization. (9) 1595
Braginsky, Michael See Tikare, Veena
Bredikhin, Sergei See Matsuda, Kazuyuki
Bremner, Theodore W. See Beyea, Steven D.
Bressiani, Ana Helena de A. See Marchi, Juliana
Bressiani, José Carlos See Marchi, Juliana
Brewer, L. N.; Peascoe, R. A.; Hubbard, C. R.; and Dravid, V. P.
Residual Stress Distributions in the Solid Solution Eutectic, $Co_{1-x}Ni_xO/ZrO_2(CaO)$. (12) 2188
Brezinsky, Kenneth See Jain, Akhil
Bright, Victor M. See Saravanan, Rajgopal Arunachalam
Brito, Manuel E. See Deng, Zhen-Yan
Brosnan, Kristen H.; Messing, Gary L.; and Agrawal, Dinesh K.
Microwave Sintering of Alumina at 2.45 GHz. (8) 1307
Bruggen, Michel P. B. van See Apetz, Rolf
Brydson, Rik M. See Naksata, Manoch; Nimmo, William
Buscaglia, Vincenzo See Ubaldini, Alberto
Bustos, A. Guerrero See Penilla, R. Peña
Caballero, Angel See Vázquez, Bertha Alicia
Cai, Ye; Zimmermann, André; Bauer, Arndt; and Aldinger, Fritz
Characterization of Precursor-Derived Silicon-Carbon-Nitrogen Ceramics after Creep Testing. (9) 1598
Callejas, Pío See García, Ana M.
Calvert, Clair See Nimmo, William
Calzada, M. Lourdes See Ricote, Jesús
Cannon, Bret D. See Shepard, Chester L.
Cannon, Rowland M. See MacLaren, Ian
Cannon, W. Roger See Zhou, Xinzhang
Cao, Jiang Li; Wang, Xiao Hui; Zhang, Ning Xin; and Li, Long Tu
Direct Current-Voltage Failure of Lead-Based Relaxor Ferroelectrics with Silver Doping. (11) 1856
Cao, Shixun See Watari, Koji
Capelletti, Tiziano See Colombo, Paolo
Carda, Juan B. See Masó, Nahum

Cardoso, Fábio A. See Innocentini, Murilo D. M.
Carmel, Yuval See Xu, Geng-fu
Carnali, Joseph O. See Sharma, Anju
Carter, Emily A. See Jarvis, Emily A. A.
Carter, Melody L. See Vance, Eric R.
Castaing, Jacques See Korinek, Sylvie Lartigue
Catanoiu, Amalia See Levi, Carlos G.
Cerecedo, Carmen See Valcárcel, Víctor
Chan, Helen Lai Wah See Chen, Wan Ping; Wang, Xiaoxing
Chan, Helen M. See Khan, Ajmal; King, Patrick T.
Chateigner, Daniel See Ricote, Jesús
Chen, Da See Zhang, Xiao Feng
Chen, I-Wei See Zenotchkine, M.; Wang, Lingling
Chen, Kuei-Hsien See Kan, Ming-Chi
Chen, Linlin; Ye, Haihui; Gogotsi, Yury; and McNallan, Michael J.
Carbothermal Synthesis of Boron Nitride Coatings on Silicon Carbide. (11) 1830
Chen, Ming; Hallstedt, Bengt; Grundy, A. Nicholas; and Gauckler, Ludwig J.
CeO_2–CoO Phase Diagram. (9) 1567
Chen, Qi; Miyata, Noboru; Kokubo, Tadashi; and Nakamura, Takashi
Bioactivity and Mechanical Properties of Poly(dimethylsiloxane)-Modified Calcia–Silica Hybrids with Added Titania. (5) 806
Chen, RenZheng; Wang, Xiaohui; Gui, ZhiLun; and Li, LongTu
Effect of Silver Addition on the Dielectric Properties of Barium Titanate-Based X7R Ceramics. (6) 1022
Chen, Wan Ping; Jiang, Xiang Ping; Wang, Yu; Peng, Zhi; and Chan, Helen Lai Wah
Water-Induced Degradation of Barium Titanate Ceramics Studied by Electrochemical Hydrogen Charging. (4) 735
Chen, Zhi-Zhan; Shi, Er-Wei; Zheng, Yan-Qing; Xiao, Bing; and Zhuang, Ji-Yong
Hydrothermal Synthesis of Nanosized $CoAl_2O_4$ on $ZnAl_2O_4$ Seed Crystallites. (6) 1058
Cheng, Jian-Gong; Gabl, Reinhard; Pitzer, Dana; Primig, Robert; Schreiter, Matthias; and Wersing, Wolfram
Chemical Solution Deposition of Columnar-Grained Metallic Lanthanum Nitrate Thin Films. (10) 1786
Cheng, Jin-Rong; Eitel, Richard; and Cross, L. Eric
Lanthanum-Modified $(1-x)(Bi_{0.5}La_{0.2})(Ga_{0.05}Fe_{0.95})O_3$–$xPbTiO_3$ Crystalline Solutions: Novel Morphotropic Phase-Boundary Lead-Reduced Piezoelectrics. (12) 2111
Cheng, Yi-Bing See Kan, Yanmei; Ma, Jingtao; Xie, Zong-Han
Chevalier, Jérôme See De Aza, Antonio H.; Deville, Sylvain
Chi, Miaofang; Gu, Hui; Wang, Xin; and Wang, Peiling
Evidence of Bilevel Solubility in the Bimodal Microstructure of TiO_2-Doped Alumina. (11) 1953
Chick, Lawrence A. See Chou, Yeong-shyung
Ching, Wai-Yim; Xu, Yong-Nian; and Ouyang, Lizhi
Electronic Structure and Bonding in Crystalline $Y_{10}[SiO_4]_6N_2$. (8) 1424
Cho, Chu-Hyun See Kinemuchi, Yoshiaki
Cho, Churl Hee; Kim, Do Kyung; and Kim, Do Hyeong
Photocatalytic Activity of Monodispersed Spherical TiO_2 Particles with Different Crystallization Routes. (7) 1138
Cho, Joon Yeob; Yoon, Ki Hyun; and Kim, Eung Soo
Correlation between Arrangement of Dielectric Layers and Microwave Dielectric Properties of $Mg_{0.93}Ca_{0.07}TiO_3$–$(Ca_{0.3}Li_{0.14}Sm_{0.42})TiO_3$ Ceramics. (8) 1330
Cho, Seughyun See Moon, Jooho
Cho, Seung-Beom See Kim, Byoung-Kyu
Cho, Yang Koo See Lee, Hwack Joo
Cho, Yong S. See Kim, Jae Beom
Choi, Jae-Il; Han, Joo-Hwan; and Kim, Doh-Yeon
Effect of Titania and Lithia Doping on the Boundary Migration of Alumina under an Electric Field. (2) 347; Effect of Titania and Lithia Doping on the Boundary Migration of Alumina under an Electric Field. (4) 640
Choi, Si-Young See Jung, Yang-Il
Chou, Yeong-shyung; Stevenson, Jeffry W.; and Chick, Lawrence A.
Novel Compressive Mica Seals with Metallic Interlayers for Solid Oxide Fuel Cell Applications. (6) 1003
Choudhury, Samrat; Gandhi, Ashutosh S.; and Jayaram, Vikram
Bulk, Dense, Nanocrystalline Yttrium Aluminum Garnet by Consolidation of Amorphous Powders at Low Temperatures and High Pressures. (2) 247
Choy, Chung-Loong See Wang, Xiaoxing
Christen, David K. See Aytug, Tolga
Chu, Min Cheol See Kim, Young-Wook
Chuang, Po-Yo See Kuo, Dong-Hau
Chung, Tai-Joo See Deghenghi, Gianluca
Chung, Woon Jin and Heo, Jong
Spectroscopic Properties and Local Structure of Eu^{3+} in Ge–Ga–S–CsBr (or CsCl) Glasses. (2) 286
Ciccarone, Antonio See Licci, Francesca
Cima, Michael J. See Uhland, Scott A.
Cincotto, Maria Alba See Bonk, Fábio
Cinibulk, Michael K. See Keller, Kristin A.
Clare, Alexis G. See Samadhi, Tjokorde W.
Clarke, David R. See Ragan, Deirdre D.
Clément, Jerome See Navarro, Melba
Coddet, Christian See Li, Jianfeng
Colombo, Paolo; Perini, Katia; Bernardo, Enrico; Capelletti, Tiziano; and Maccagnan, Giorgio
Ceramic Microtubes from Preceramic Polymers. (6) 1025
Constanti-Carey, Keri K. See Pownceby, Mark I.
Cooper, Reid F. See Everman, Rebecca L. A.
Corbin, Stephen F. and Qiao, Xin
Development of Solid Oxide Fuel Cell Anodes Using Metal-Coated Pore-Forming Agents. (3) 401
Cordoncillo, Eloisa See Masó, Nahum
Costa, Anna Luisa See Pretto, Michele
Costa, Florinda See Belmonte, Manuel
Costa, Giorgio See Ubaldini, Alberto
Cromme, Peter See Melcher, Reinhold
Cross, L. Eric See Cheng, Jin-Rong
Cui, Fu-Zhai See Zhang, Wei
Curry, Adam C.; Shih, Albert J.; Kong, Jin; Scattergood, Ronald O.; and McSpadden, Sam B.
Grinding Temperature Measurements in Magnesia-Partially-Stabilized Zirconia Using Infrared Spectrometry. (2) 333
Daneu, Nina; Rečnik, Aleksander; and Bernik, Slavko
Grain Growth Control in Sb_2O_3-Doped Zinc Oxide. (8) 1379
D'Arrigo, Maria Cristina See Andreola, Fernanda
Darsell, Jens; Bose, Susmita; Hosick, Howard L.; and Bandyopadhyay, Amit
From CT Scan to Ceramic Bone Graft. (7) 1076
Davies, Peter See Farber, Leon
Davis, Janet B.; Hay, Randall S.; Marshall, David B.; Morgan, Peter E. D.; and Sayir, Ali
Influence of Interfacial Roughness on Fiber Sliding in Oxide Composites with La-Monazite Interphases. (2) 305
Davis, Mark J. and Mitra, Ina
Crystallization Measurements Using DTA Methods: Applications to Zerodur®. (9) 1540
Davolos, Marian Rosaly See Sigoli, Fernando Aparecido
Day, R. Arthur See Vance, Eric R.
De Aza, Antonio H.; Chevalier, Jérôme; Fantozzi, Gilbert; Schehl, Martin; and Torrecillas, Ramón
Slow-Crack-Growth Behavior of Zirconia-Toughened Alumina Ceramics Processed by Different Methods. (1) 115
de Biasi, Ronaldo S. and Grillo, Maria L. N.
Measurement of Small Concentrations of Manganese in Lime (CaO) Using Electron Spin Resonance. (1) 195
Degen, Andrej and Kosec, Marija
Influence of pH and Ionic Impurities on the Adsorption of Poly(acrylic) Dispersant onto a Zinc Oxide Surface. (12) 2001
Deghenghi, Gianluca; Chung, Tai-Joo; and Sergo, Valter
Raman Investigation of the Nitridation of Yttria-Stabilized Tetragonal Zirconia. (1) 169
de Groot, Klaas See Li, Shi Hong
De Guire, Mark R. See Supothina, Sitthisuntorn
Deng, Cheng-Ji; Yu, Peng; Yau, Man-Yan; Ku, Chiu-Shan; and Ng, Dickon H. L.
Fabrication of Single-Crystal α-Al_2O_3 Nanorods by Displacement Reactions. (8) 1385
Deng, Zhen-Yan; Zhou, You; Brito, Manuel E.; Yang, Jian-Feng; and Ohji, Tatsuki
Fracture-Mode Change in Alumina-Silicon Carbide Composites Doped with Rare-Earth Impurities. (10) 1789
Derby, Brian See Boyer, Damien
Deshpande, Kishori; Mukasyan, Alexander; and Varma, Arvind
Aqueous Combustion Synthesis of Strontium-Doped Lanthanum Chromite Ceramics. (7) 1149
De Souza, Roger A.; Fleig, Jürgen; Maier, Joachim; Kienzle, Oliver; Zhang, Zaoli; Sigle, Wilfried; and Rühle, Manfred
Electrical and Structural Characterization of a Low-Angle Tilt Grain Boundary in Iron-Doped Strontium Titanate. (6) 922
Dessemond, Laurent See Lanfredi, Silvania
Deville, Sylvain and Chevalier, Jérôme
Martensitic Relief Observation by Atomic Force Microscopy in Yttria-Stabilized Zirconia. (12) 2225
de Wijn, Joost R. See Li, Shi Hong
Dhara, Santanu and Bhargava, Parag
A Simple Direct Casting Route to Ceramic Foams. (10) 1645
Dias, Anderson; Paschoal, Carlos William A.; and Moreira, Roberto Luiz
Infrared Spectroscopic Investigations in Ordered Barium Magnesium Niobate Ceramics. (11) 1985
Di Bartolomeo, Elisabetta See Martucci, Alessandro
Dmytruk, Andriy See Lin, Hong
Dohmaru, Takaaki See Narisawa, Masaki
Dong, Shaoming; Katoh, Yutai; and Kohyama, Akira
Preparation of SiC/SiC Composites by Hot Pressing, Using Tyranno-SA Fiber as Reinforcement. (1) 26
Dong, Xian-Lin See Xiang, Ping-Hua
dos Santos e Lucato, Sergio L.
Crack-Growth-Velocity-Dependent *R*-Curve Behavior in Lead Zirconate Titanate. (6) 1037
Dravid, Vinayak P. See Brewer, L. N.; Fu, L.
Drew, Robin A. L. See Reyes, Ena A. Aguilar; Medraj, Mamoun
Drofenik, Miha; Žnidaršič, Andrej; and Makovec, Darko
Use of the Retarded Solution-Reprecipitation Process to Attain a Higher Initial Permeability in MnZn Ferrites. (9) 1601
Drofenik, Miha See Makovec, Darko
Druffner, Carl J. and Sathish, Shamachary
Atomic Force and Ultrasonic Force Microscopic Investigation of Laser-Treated Ceramic Head Sliders. (12) 2122
Du, Honghua See Tsarenko, Irina
Durán, Alicia See Pascual, Maria J.
Durán, Pedro; Tartaj, Jesus; and Moure, Carlos
Fully Dense, Fine-Grained, Doped Zinc Oxide Varistors with Improved Nonlinear Properties by Thermal Processing Optimization. (8) 1326
Duran, Pedro See Moure, Carlos
Edirisinghe, Mohan J. See Li, Xudong
Eitel, Richard See Cheng, Jin-Rong
Eldridge, Jeffrey I. See Lee, Kang N.
Elizalde, S. Goñi See Penilla, R. Peña
Ellis, Donald E. See Warschkow, Oliver
Escalante-García, Jose I.; Fuentes, Antonio F.; Gorokhovsky, Alexander; Fraire-Luna, Pedro E.; and Mendoza-Suarez, Guillermo
Hydration Products and Reactivity of Blast-Furnace Slag Activated by Various Alkalis. (12) 2148
Escardino, A.; Mestre, S.; Barba, A.; Beltran, V.; and Blasco, A.
Kinetic Study of Black Fe_2O_3–Cr_2O_3 Pigment Synthesis: I, Influence of Synthesis Time and Temperature. (6) 945
Escribano, Purificación See Masó, Nahum
Esmaeilzadeh, Saeid See Grins, Jekabs
Evans, Julian R. G. See Sousa, F. Cristina Gomes de; Mohebi, Mohammad Masoud
Everman, Rebecca L. A. and Cooper, Reid F.
Internal Reduction of an Iron-Doped Magnesium Aluminosilicate Melt. (3) 487
Fang, Chang Ming and Metselaar, Rudi
First-Principles Calculations of Microdomain Models for β-Sialon Si_5AlON_7. (11) 1956
Fang, Tsang-Tse and Ko, Tsun-Fa
Factors Affecting the Preparation of $Sr_2Fe_{2-x}Mo_xO_6$. (9) 1453
Fantozzi, Gilbert See De Aza, Antonio H.
Farber, Leon and Davies, Peter
Influence of Cation Order on the Dielectric Properties of $Pb(Mg_{1/3}Nb_{2/3})O_3$–$Pb(Sc_{1/2}Nb_{1/2})O_3$ (PMN-PSN) Relaxor Ferroelectrics. (11) 1861
Fayette, Sylvain See Smith, David S.
Feenstra, Roeland See Aytug, Tolga
Feliciano, Sérgio See Sigoli, Fernando Aparecido
Feng, Chu-De See Xiang, Ping-Hua
Feng, Kai and Lombardo, Stephen J.
Modeling of the Pressure Distribution in Three-Dimensional Porous Green Bodies during Binder Removal. (2) 234
Feng, Z. C. See Lombardo, Stephen J.
Ferber, Mattison K. See Lin, Hua-Tay; Opila, Elizabeth J.
Fernandes, Antonio José See Belmonte, Manuel
Fernández-Jiménez, Ana; Puertas, Francisca; Sobrados, Isabel; and Sanz, Jesús
Structure of Calcium Silicate Hydrates Formed in Alkaline-Activated Slag: Influence of the Type of Alkaline Activator. (8) 1389
Fernie, John A. See Helvoort, Antonius T. J. van
Ferreira, José M. F. See Xu, Xin; Yang, Juan
Ferretti, Maurizio See Ubaldini, Alberto
Ferro, Patrizia See Licci, Francesca
Feteira, Antonio; Sarma, Kumaravinothan; Alford, Neil McN.; Reaney, Ian M.; and Sinclair, Derek C.
Microwave Dielectric Properties of Gallium-Doped Hexagonal Barium Titanate Ceramics. (3) 511
Fett, Theo; Munz, Dietrich; and Thun, Gerhard
Multiaxial Deformation Behavior of PZT from Torsion Tests. (8) 1427
Fett, Theo See Njiwa, Alain B. Kounga
Fisher, John G. See Kim, Min-Soo
Fisher-White, Michael J. See Pownceby, Mark I.
Fleig, Jürgen See De Souza, Roger A.
Fox, Dennis S.; Opila, Elizabeth J.; Nguyen, QuynhGiao N.; Humphrey, Donald L.; and Lewton, Susan M.
Paralinear Oxidation of Silicon Nitride in a Water-Vapor/Oxygen Environment. (8) 1256
Fox, Dennis S. See Lee, Kang N.; Opila, Elizabeth J.
Fraire-Luna, Pedro E. See Escalante-García, Jose I.
Frémy, Nicolas; Maurice, Vincent; and Marcus, Philippe
Initial Stages of Growth of Alumina on NiAl(001) at 1025 K. (4) 669
French, Roger H. See Tan, Guo-Long
Fu, L.; Johnson, D. Lynn; Zheng, Jian G.; and Dravid, Vinayak P.
Microwave Plasma Synthesis of Nanostructured γ-Al_2O_3 Powders. (9) 1635
Fudouzi, Hiroshi See Tang, Fengqiu
Fuentes, Antonio F. See Escalante-García, Jose I.
Fujishiro, Yoshinobu; Miyata, Motoyuki; Awano, Masanobu; and Maeda, Kunihiro
Effect of Microstructural Control on Thermoelectric Properties of Hot-Pressed Aluminum-Doped Zinc Oxide. (12) 2063

Fukuda, Koichiro; Hattori, Namiko; and Yoshida, Hideto
Fractional Crystallization of Liquid Coexisting with α-Ca_2SiO_4 Solid Solution in the CaO–SiO_2–Al_2O_3–Fe_2O_3 Pseudoquaternary System. (12) 2154
Fukuda, Koichiro; Inoue, Shinji; and Yoshida, Hideto
Substitution of Sodium and Silicon in Tricalcium Aluminate. (1) 112
Furusho, Shingo See Saito, Noritaka
Furuta, Sachiko See Ichinose, Hiromichi
Gabl, Reinhard See Cheng, Jian-Gong
Galassi, Carmen See Pretto, Michele
Gandhi, Ashutosh S. See Choudhury, Samrat
Gao, Lian See Li, Yaogang; Liu, Yangqiao; Qiu, Yu; Sun, Jing; Xu, Huarui; Zhang, Rui
Gao, Lian and Li, Jingguo
Preparation of Nanostructured Hexagonal Boron Nitride Powder. (11) 1982
Gao, Xingsen; Xue, Junmin; Wang, John; Yu, Ting; and Shen, Ze Xiang
Unique Dielectric Behavior of $0.6Pb(Ni_{1/3}W_{1/2})O_3$-$0.4PbTiO_3$ Derived from Mechanical Activation. (5) 791
Garay, Javier See Zhan, Guo-Dong
García, Ana M.; Villora, José M.; Moreno, Diego A.; Ranninger, Carlos; Callejas, Pío; and Barba, M. Flora
Heavy Metals Bioremediation from Polluted Water by Glass-Ceramic Materials. (12) 2200
Garofalini, Stephen H. and Luo, Weiwei
Molecular Dynamics Simulations of Calcium Silicate Intergranular Films between Silicon Nitride Crystals. (10) 1741
Gasch, Matthew J. See Wan, Julin
Gauckler, Ludwig J. See Heule, Martin; Chen, Ming
Gemming, Thomas; Nufer, Stefan; Kurtz, Wolfgang; and Rühle, Manfred
Structure and Chemistry of Symmetrical Tilt Grain Boundaries in α-Al_2O_3: I. Bicrystals with "Clean" Interface. (4) 581; Structure and Chemistry of Symmetrical Tilt Grain Boundaries in α-Al_2O_3: II. Bicrystals with Y at the Interface. (4) 590
Ginebra, Maria-Pau See Navarro, Melba
Giocondi, Jennifer L. and Rohrer, Gregory S.
Structure Sensitivity of Photochemical Oxidation and Reduction Reactions on $SrTiO_3$ Surfaces. (7) 1182
Giotto, Marcus Vinicius See Sigoli, Fernando Aparecido
Gogotsi, Yury See Chen, Linlin
Gomi, Kenjiro See Kamiya, Hidehiro
González, Gabriela B. See Warschkow, Oliver
Gorokhovsky, Alexander See Escalante-García, Jose I.
Gorte, Raymond J. See Boaro, Martha
Gorzkowski, Edward P. See Khan, Ajmal; King, Patrick T.
Goto, Ken; Hatta, Hiroshi; Oe, Masato; and Koizumi, Takashi
Tensile Strength and Deformation of a Two-Dimensional Carbon–Carbon Composite at Elevated Temperatures. (12) 2129
Goto, Yoichi See Nogami, Masayuki
Goyal, Amit See Aytug, Tolga
Gozzi, Daniele See Bellucci, Alessandra
Grandjean, Sylvie See Smith, David S.
Grattan-Bellew, Patrick E. See Beyea, Steven D.
Green, David J. See Lee, Sang-Ho; Shen, Junwu
Green, Patrice See Quinn, George D.
Greil, Peter See Melcher, Reinhold
Grillo, Maria L. N. See de Biasi, Ronaldo S.
Grimes, Robin W. See Harding, John H.
Grins, Jekabs; Esmaeilzadeh, Saeid; and Shen, Zhijian
Structures of Filled α-Si_3N_4-Type $Ca_{0.27}La_{0.03}Si_{11.38}Al_{0.62}N_{16}$ and $LiSi_9Al_3O_2N_{14}$. (4) 727
Grover, Susan See Wagh, Arun S.
Groza, Joanna R. See Scarlat, Oana
Grundy, A. Nicholas See Chen, Ming
Gu, Hui; Nagano, Takayuki; Zhan, Guo-Dong; Mitomo, Mamoru; and Wakai, Fumihiro
Dynamic Evolution of Grain-Boundary Films in Liquid-Phase-Sintered Ultrafine Silicon Carbide Material. (10) 1753
Gu, Hui See Chi, Miaofang
Gu, Huiming; Shih, Wan Y.; and Shih, Wei-Heng
Single-Calcination Synthesis of Pyrochlore-Free $0.9Pb(Mg_{1/3}Nb_{2/3})O_3$–$0.1PbTiO_3$ and $Pb(Mg_{1/3}Nb_{2/3})O_3$ Ceramics Using a Coating Method. (2) 217
Gu, S. L. See Bi, Zhaoxia X.
Guglielmi, Massimo See Martucci, Alessandro
Gui, Zhilun See Li, Bo; Chen, RenZheng
Guicciardi, Stefano See Toschi, Francesco; Sciti, Diletta
Guitián, Francisco See Valcárcel, Víctor
Gülgün, Mehmet Ali See Altay, Arzu; MacLaren, Ian
Guo, Jingkun See Zhang, Rui
Guo, Shuqi; Hirosaki, Naoto; Nishimura, Toshiyuki; Yamamoto, Yoshinobu; and Mitomo, Mamoru
Hot-Pressed Silicon Nitride with Lu_2O_3 Additives: Oxidation and Its Effect on Strength. (11) 1900
Guo, Xin
Roles of Alumina in Zirconia for Functional Applications. (11) 1867
Guo, Xin; Sigle, Wilfried; and Maier, Joachim
Blocking Grain Boundaries in Yttria-Doped and Undoped Ceria Ceramics of High Purity. (1) 77
Gutiérrez, Carlos A. and Moreno, Rodrigo
Interparticle Potentials in Nonaqueous Silicon Nitride Suspensions. (1) 59
Gutierrez, Dionisio See Moure, Carlos
Hackley, Vincent A. See Lee, Jaeho; Paik, Ungyu
Hafner, Jürgen See Benco, L'ubomír
Halloran, John W. See Koh, Young-Hag
Hallstedt, Bengt See Chen, Ming
Hammond, Robert See Medraj, Mamoun
Hampartsoumian, Edward See Nimmo, William
Hampshire, Stuart See Pomeroy, Michael J.
Han, Byoung-Dong See Bae, Byoung-Chan
Han, Joo-Hwan See Choi, Jae-Il
Han, Young Ho See Suh, Jung Ju
Handwerker, Carol A. See Park, Chan Woo; Park, Jong-Keuk
Harada, Yoshihisa; Suzuki, Takayuki; Hirano, Kazumi; and Waku, Yoshiharu
Influence of Moisture on Ultra-High-Temperature Tensile Creep Behavior of *in Situ* Single-Crystal Oxide Ceramic Alumina/Yttrium Aluminum Garnet Eutectic Composite. (6) 951
Harding, John H.; Atkinson, Kurt J. W.; and Grimes, Robin W.
Experiment and Theory of Diffusion in Alumina. (4) 554
Harmer, Martin P. See Khan, Ajmal; King, Patrick T.; Salamone, Samuel M.
Harutyunyan, Valeri S.; Abovyan, Eduward S.; Monteiro, Paulo J. M.; Mkrtchyan, Vahram P.; Balyan, Minas K.; and Aivazyan, Ashoi P.
X-ray Diffraction Investigations of Microstructure of Calcium Hydroxide Crystallites in the Interfacial Transition Zone of Concrete. (12) 2162
Hasegawa, Marika See Shimada, Shiro
Hashimoto, Hitoshi See Zhang, Zhe-Feng
Hashimoto, Shinobu; Zhang, Shaowei; Lee, William Edward; and Yamaguchi, Akira
Synthesis of Magnesium Aluminate Spinel Platelets from α-Alumina Platelet and Magnesium Sulfate Precursors. (11) 1959
Hashimoto, Shinobu See Inoue, Koji
Hashishin, Takeshi; Yamamoto, Takeshi; Ohyanagi, Manshi; and Munir, Zuhair A.
Simultaneous Synthesis and Densification of Titanium Oxycarbide, Ti(C,O), through Gas–Solid Combustion. (12) 2067
Hatanaka, Kenji; Katsuyama, Masashi; and Takagi, Hideki
Push-Pull Fatigue of Sintered Silicon Nitride Ceramics at Elevated Temperatures. (1) 135
Hatta, Hiroshi See Goto, Ken
Hattori, Namiko See Fukuda, Koichiro
Hay, Randall S. See Davis, Janet B.; Mogilevsky, Pavel; Zawada, Larry P.
He, Anqiang See Kernan, Brian D.
He, Yong See Li, Chang-Jiu
Helble, Joseph J. See Limaye, Amit U.
Helvoort, Antonius T. J. van; Knowles, Kevin M.; and Fernie, John A.
Nanostructures at Electrostatic Bond Interfaces. (10) 1773
Hennings, Detlev F. See Opitz, Mathew R.
Heo, Jong See Chung, Woon Jin
Heo, Seong-Joo See Kim, Dong-Hwan
Hesse, Dietrich See Sun, Duochun
Heuer, Arthur H. See Kernan, Brian D.; Supothina, Sitthisuntorn; Tang, Xiaohong
Heule, Martin; Schell, Julia; and Gauckler, Ludwig J.
Powder-Based Tin Oxide Microcomponents on Silicon Substrates Fabricated by Micromolding in Capillaries. (3) 407
Higashihira, Makoto See Nakashima, Shin-ichi
Higuchi, Atsushi See Kozuka, Hiromitsu
Hilpert, Klaus See Matraszek, Aleksandra
Hind, David See Nimmo, William
Hirano, Kazumi See Harada, Yoshihisa
Hirano, Masanori and Suda, Akihiko
Oxygen Storage Capacity, Specific Surface Area, and Pore-Size Distribution of Ceria–Zirconia Solid Solutions Directly Formed by Thermal Hydrolysis. (12) 2209
Hirano, Shin-ichi See Ueno, Kengo; Otsuka, Akihiko
Hirao, Kiyoshi See Jones, Mark I.; Zhou, You; Hyuga, Hideki; Lenčéš, Zoltán
Hirata, Yoshihiro; Tabata, Shuhei; and Ideue, Jun
Interactions in the Silicon Carbide–Polyacrylic Acid–Yttrium Ion System. (1) 5
Hirosaki, Naoto See Suehiro, Takayuki; Guo, Shuqi; Tanaka, Hidehiko
Hirota, Ken See Miyamoto, Yoshinari
Hockey, Bernard J.; Wiederhorn, Sheldon M.; Blendell, John E.; Lee, Jong-Sook; and Kang, Myung-Koo
Structure of Sapphire Bicrystal Boundaries Produced by Liquid-Phase Sintering. (4) 612
Hoffman, Mark See Xie, Zong-Han
Hoffmann, Michael J. See Ye, Feng; Ziegler, A.
Holmquist, Magnus G. and Lange, Fred F.
Processing and Properties of a Porous Oxide Matrix Composite Reinforced with Continuous Oxide Fibers. (10) 1733
Holzer, Stefan See Ye, Feng
Hong, Kug Sun See Kim, Dong-Wan
Hong, Seong-Hyeon See Kim, Byung-Ki; Ahn, Jung Hyuck
Horikoshi, Hideharu See Matsui, Koji
Hosick, Howard L. See Darsell, Jens
Hotta, Tadashi See Abe, Hiroya
Hotta, Yuji; Tsugoshi, Takahisa; Nagaoka, Takaaki; Yasuoka, Masaki; Nakamura, Kanzou; and Watari, Koji
Effect of Oligosaccharide Alcohol Addition to Alumina Slurry and Translucent Alumina Produced by Slip Casting. (5) 755
Hou, Peggy Y.
Impurity Effects on Alumina Scale Growth. (4) 660
Hsu, Pei Pei See Lee, Soo Y.
Huang, Jow-Lay See Kan, Ming-Chi
Huang, Ming-Ren; Peng, Cheng-Jien; and Lu, Hong-Yang
Lead Zirconate Titanate Thin Films by Aerosol Plasma Deposition: Microstructure Analysis. (12) 2167
Huang, Yong See Ma, Jingtao
Huang, Zhao-Long See Zhang, Wei
Hubbard, C. R. See Brewer, L. N.
Humphrey, Donald L. See Fox, Dennis S.
Hutzler, Thomas See Krell, Andreas
Hwang, Byung-Won See Suh, Chang-Min
Hwang, Nong Moon See Ahn, Jung Hyuck; Kim, Byung-Ki; Lee, Hyoung R.; Lee, Soo-Young; Yoon, Seok-Hyun
Hyuga, Hideki; Hirao, Kiyoshi; Jones, Mark I.; and Yamauchi, Yukihiko
Processing and Tribological Properties of Si_3N_4/Carbon Short Fiber Composites. (7) 1081
Hyuga, Hideki See Jones, Mark I.
Ibukiyama, Masahiro See Yokota, Hiroshi
Ichinose, Hiromichi; Taira, Masanori; Furuta, Sachiko; and Katsuki, Hiroaki
Anatase Sol Prepared from Peroxotitanium Complex Aqueous Solution Containing Niobium or Vanadium. (9) 1605
Ideue, Jun See Hirata, Yoshihiro
Iida, Yuichi See Kamiya, Hidehiro
Ikawa, Hiroyuki See Nakano, Hiromi
Ikegami, Takayasu See Li, Ji-Guang
Ikegaya, Akihiko See Miyamoto, Yoshinari
Ikuhara, Yuichi; Nakamura, Atsutomo; Nishimura, Hitoshi; Matsunaga, Katsuyuki; Yamamoto, Takahisa; and Lagerlöf, K. Peter D.
Dislocation Structures of Low-Angle and Near-Σ3 Grain Boundaries in Alumina Bicrystals. (4) 595
Ikuhara, Yuichi See Matsui, Koji; Nishimura, Hitoshi; Oba, Fumiyasu
Inagaki, Yoshiaki See She, Jihong
Innocentini, Murilo D. M.; Cardoso, Fábio A.; Akyioshi, Mario M.; and Pandolfelli, Victor C.
Drying Stages during the Heating of High-Alumina, Ultra-Low-Cement Refractory Castables. (7) 1146
Innocentini, Murilo D. M.; Miranda, Marcela F. S.; Cardoso, Fábio A.; and Pandolfelli, Victor C.
Vaporization Processes and Pressure Buildup during Dewatering of Dense Refractory Castables. (9) 1500
Inoue, Hiroyuki See Wakabayashi, Yuki
Inoue, Koji; Yamaguchi, Akira; and Hashimoto, Shinobu
Synthesis of Al_4SiC_4. (6) 1028
Inoue, Shinji See Fukuda, Koichiro
Interrante, Leonard V. See Moraes, Kevin V.
Iseki, Takashi See Narisawa, Masaki
Ishigaki, Takamasa; Li, Ya-Li; and Kataoka, Eiji
Phase Formation and Microstructure of Titanium Oxides and Composites Produced by Thermal Plasma Oxidation of Titanium Carbide. (9) 1456
Ishikawa, Takashi See Ogasawara, Toshio
Ishikawa, Takehiko See Paradis, Paul-François
Ishizaki, Kozo See Watari, Koji
Ito, Kenji See Wakabayashi, Yuki
Itoh, Takashi See Otsuka, Akihiko
Iwasa, Mikio See Ye, Feng
Iwata, Misao See Nakahira, Atsushi
Jain, Akhil and Brezinsky, Kenneth
Microwave-Assisted Combustion Synthesis of Tantalum Nitride in a Fluidized Bed. (2) 222
Jain, Himanshu See Sharma, Anju
Jarvis, Emily A. A. and Carter, Emily A.
Exploiting Covalency to Enhance Metal–Oxide and Oxide–Oxide Adhesion at Heterogeneous Interfaces. (3) 373
Jayaram, Vikram See Choudhury, Samrat
Jayaseelan, Daniel Doni See She, Jihong
Jean, Jau-Ho See Wei, Chih-Hung
Jeong, Seung Y. See Wagh, Arun S.
Jia, Chun-Lin See Qin, Yue-Ling
Jiang, Wan See Wang, Gang
Jiang, Weihua See Kinemuchi, Yoshiaki
Jiang, Xiang Ping See Chen, Wan Ping
Jin, Tetsuro See Lin, Hong
Jin, Zhi-Hao See Ma, Xin-Pei; Yang, Jian-Feng
Johnson, D. Lynn See Fu, L.
Jones, Linda E. See Samadhi, Tjokorde W.
Jones, Mark I.; Hyuga, Hideki; and Hirao, Kiyoshi
Optical and Mechanical Properties of α/β Composite Sialons. (3) 520
Jones, Mark I. See Hyuga, Hideki
Jonghe, Lutgard C. De See Zhang, Xiao Feng
Julián, Beatriz See Masó, Nahum
Jumas, Jean Claude See Soro, Nibambin

Jung, Byung-Hae; Lee, Do-Kyung; Sohn, Sang-Ho; and Kim, Hyung-Sun
Thermal, Dielectric, and Optical Properties of Neodymium Borosilicate Glasses for Thick Films. (7) 1202
Jung, Joonchul and Baik, Sunggi
Abnormal Grain Growth of Alumina: CaO Effect. (4) 644
Jung, Yang-Il; Choi, Si-Young; and Kang, Suk-Joong L.
Grain-Growth Behavior during Stepwise Sintering of Barium Titanate in Hydrogen Gas and Air. (12) 2228
Jung, Yang-Il See Lee, Byoung-Ki
Jung, Young-Soo See Lee, Jong-Heun
Júnior, Miguel Jafelicci See Sigoli, Fernando Aparecido
Kaack, Heiko See Thangadurai, Venkataraman
Kagawa, Yutaka See Kim, Yeongseok
Kai, Kentaro See Saito, Noritaka
Kakiuchi, Toshihito See Kamiya, Hidehiro
Kamitani, Kazuya See Wakabayashi, Yuki
Kamiya, Hidehiro; Gomi, Kenjiro; Iida, Yuichi; Tanaka, Kenji; Yoshiyasu, Takashi; and Kakiuchi, Toshihito
Preparation of Highly Dispersed Ultrafine Barium Titanate Powder by Using Microbial-Derived Surfactant. (12) 2011
Kan, Ming-Chi; Huang, Jow-Lay; Sung, James; Lii, Ding-Fwu; and Chen, Kuei-Hsien
Field Emission Characteristics of Amorphous Diamond. (9) 1513
Kan, Yanmei; Wang, Peiling; Li, Yongxiang; Cheng, Yi-Bing; and Yan, Dongsheng
Properties of Aqueous Bismuth Titanate Suspensions Stabilized by Acrylic Acid/Acrylic Ester Copolymer. (12) 2203
Kanehira, Shingo; Kirihara, Soshu; Miyamoto, Yoshinari; Sakoda, Kazuaki; and Takeda, Mitsuo Wada
Band Gap Modification of Diamond Photonic Crystals by Changing the Volume Fraction of the Dielectric Lattice. (10) 1691
Kaneko, Kenji; Kato, Takeharu; Kitayama, Mikio; and Tomokiyo, Yoshitsugu
Precipitation of $MgO{\cdot}nAl_2O_3$ in Mg-Doped α-Al_2O_3 under Electron Irradiation. (1) 161
Kang, Byeongwon W. See Aytug, Tolga
Kang, Chiwon See Moon, Jooho
Kang, Myung-Koo See Hockey, Bernard J.
Kang, Shinhoo See Kim, Sungwon
Kang, Suk-Joong L. See Jung, Yang-Il; Kim, Min-Soo; Lee, Byoung-Ki
Kanzaki, Shuzo See Lenčéš, Zoltán; She, Jihong; Yang, Jian-Feng; Zhou, You
Kashiwagi, Takehiko See Miyamoto, Yoshinari
Kasuga, Toshihiro; Nogami, Masayuki; and Niinomi, Mitsuo
Joining of Calcium Phosphate Invert Glass-Ceramics on a β-Type Titanium Alloy. (6) 1031
Kasuga, Toshihiro See Nogami, Masayuki
Kataoka, Eiji See Ishigaki, Takamasa
Katase, Yoshiro See Narisawa, Masaki
Kato, Shinji See Nakahira, Atsushi
Kato, Takeharu See Kaneko, Kenji
Katoh, Yutai See Dong, Shaoming; Yang, Wen
Katsuki, Hiroaki and Komarneni, Sridhar
Role of α-Fe_2O_3 Morphology on the Color of Red Pigment for Porcelain. (1) 183
Katsuki, Hiroaki See Ichinose, Hiromichi
Katsuyama, Masashi See Hatanaka, Kenji
Kawachi, Katsuhiro See Kondoh, Junya
Kawano, Shuichi; Takahashi, Junichi; and Shimada, Shiro
Fabrication of TiN/Si_3N_4 Ceramics by Spark Plasma Sintering of Si_3N_4 Particles Coated with Nanosized TiN Prepared by Controlled Hydrolysis of $Ti(O\text{-}i\text{-}C_3H_7)_4$. (4) 701; Spark Plasma Sintering of Nano-Sized TiN Prepared from TiO_2 by Controlled Hydrolysis of $TiCl_4$ and $Ti(O\text{-}i\text{-}C_3H_7)_4$ Solution. (9) 1609
Kawata, Makoto See Shibuya, Masachika
Kear, Bernard H. See Zhou, Xinzhang
Keller, Andrew R. and Zhou, Min
Effect of Microstructure on Dynamic Failure Resistance of Titanium Diboride/Alumina Ceramics. (3) 449
Keller, Kristen A. See Mogilevsky, Pavel
Keller, Kristin A.; Mah, Tai-Il; Parthasarathy, Triplicane A.; Boakye, Emmanuel E.; Mogilevsky, Pavel; and Cinibulk, Michael K.
Effectiveness of Monazite Coatings in Oxide/Oxide Composites after Long-Term Exposure at High Temperature. (2) 325
Kernan, Brian D.; He, Anqiang; and Heuer, Arthur H.
Microstructural Evolution and Microhardness in Zirconia-Based EB-PVD Thermal Barrier Coatings. (6) 959
Kese, Kwadwo and Rowcliffe, David J.
Nanoindentation Method for Measuring Residual Stress in Brittle Materials. (5) 811
Khaleel, Mohammad A. See Shepard, Chester L.
Khan, Ajmal; Gorzkowski, Edward P.; Scotch, Adam M.; Leite, Edson R.; Li, Tao; Chan, Helen M.; and Harmer, Martin P.
Influence of Excess PbO Additions on {111} Single-Crystal Growth of $Pb(Mg_{1/3}Nb_{2/3})O_3$–35 mol% $PbTiO_3$ by Seeded Polycrystal Conversion. (12) 2176
Kienzle, Oliver See De Souza, Roger A.
Kim, Byoung-Kyu; Lim, Dae-Young; Riman, Richard E.; Nho, Jun-Seok; and Cho, Seung-Beom
A New Glycothermal Process for Barium Titanate Nanoparticle Synthesis. (10) 1793
Kim, Byung-Ki; Hong, Seong-Hyeon; Lee, Sang-Ho; Kim, Doh-Yeon; and Hwang, Nong Moon
Alternative Explanation for the Role of Magnesia in the Sintering of Alumina Containing Small Amounts of a Liquid Phase. (4) 634
Kim, Chang Yeoul; Sekino, Tohru; and Niihara, Koichi
Synthesis of Bismuth Sodium Titanate Nanosized Powders by Solution/Sol–Gel Process. (9) 1464
Kim, Deug J. See Lee, Hyoung R.
Kim, Deug Joong See Kim, Dong-Wan
Kim, Do Hyeong See Cho, Churl Hee
Kim, Do Kyung See Cho, Churl Hee
Kim, Doh-Yeon See Ahn, Jung-Hyuck; Choi, Jae-Il; Kim, Byung-Ki; Lee, Hyoung R.; Lee, Jong-Heun; Lee, Soo-Yong; Lee, Young-Il; Park, Jong-Keuk; Yoon, Seok-Hyun
Kim, Dong-Hwan; Kong, Young-Min; Lee, Su-Hee; Lee, In-Seop; Kim, Hyoun-Ee; Heo, Seong-Joo; and Koak, Jai-Young
Composition and Crystallization of Hydroxyapatite Coating Layer Formed by Electron Beam Deposition. (1) 186
Kim, Dong-Kyu and Kriven, Waltraud M.
Mullite–Aluminum Phosphate Laminated Composite Fabricated by Tape Casting. (11) 1962
Kim, Dong-Wan; Kwon, Do-Kyun; Hong, Kug Sun; and Kim, Deug Joong
Atmospheric Dependence on Dielectric Loss of $^{1}Ba_5Nb_4O_{15}$-$^{2}6BaNb_2O_6$ Ceramics. (5) 795
Kim, Eung Soo[6] See Cho, Joon Yeob
Kim, Hae-Won; Kong, Young-Min; Koh, Young-Hag; Kim, Hyoun-Ee; Kim, Hyun-Man; and Ko, Jea Seung
Pressureless Sintering and Mechanical and Biological Properties of Fluor-hydroxyapatite Composites with Zirconia. (12) 2019
Kim, Hae-Won See Koh, Young-Hag
Kim, Hai-Doo See Bae, Byoung-Chan
Kim, Hwan See Kim, Jee-Su
Kim, Hyo Tae and Lanagan, Michael T.
Structure and Microwave Dielectric Properties of $(Zn_{1-x}Co_x)TiO_3$ Ceramics. (11) 1874
Kim, Hyoun-Ee See Kim, Dong-Hwan; Kim, Hae-Won; Koh, Young-Hag
Kim, Hyung-Sun See Jung, Byung-Hae
Kim, Hyun-Man See Kim, Hae-Won
Kim, Ik Soo See Yoo, Dong Chul
Kim, Jae Beom; Yoon, Ki Hyun; and Cho, Yong S.
Compositional Dependence of Microwave Dielectric Properties in $(1-x)(Na_{1/2}Nd_{1/2})TiO_3$–$xNd(Mg_{1/2}Ti_{1/2})O_3$ Ceramics. (7) 1159
Kim, Jee-Su; Kim, Nam-Kyoung; and Kim, Hwan
Perovskite Formation and Dielectric Characteristics of $Pb(Zn_{1/3}Ta_{2/3})O_3$ with $PbTiO_3$ Substitution. (6) 929
Kim, Mi Jin and Yoon, Duk Yong
Effect of Magnesium Oxide Addition on Surface Roughening of Alumina Grains in Anorthite Liquid. (4) 630
Kim, Min-Soo; Fisher, John G.; Lee, Ho-Yong; and Kang, Suk-Joong L.
Diffusion-Induced Interface Migration and Mechanical Property Improvement in the Lead Magnesium Niobate–Lead Titanate System. (11) 1988
Kim, Nam-Kyoung See Kim, Jee-Su
Kim, Shin-Han See Kim, Young-Wook
Kim, Sung-Ho See Suh, Chang-Min
Kim, Sung S. and Sanders, Thomas H., Jr.
Thermodynamic Assessment of the Miscibility Gaps and the Metastable Liquidi in the B_2O_3–RO Systems (R = Mg, Ca, Sr, and Ba). (11) 1947
Kim, Sungwon; Min, Kyoung-hoon; and Kang, Shinhoo
Rim Structure in $Ti(C_{0.7}N_{0.3})$–WC–Ni Cermets. (10) 1761
Kim, Wonjoong See Bae, Byoung-Chan
Kim, Yeongseok; Kagawa, Yutaka; and Zhu, Shijie
Application of a Tough Surface Layer to a Fiber-Bonded Composite. (9) 1612
Kim, Yong Tae See Yoo, Dong Chul
Kim, Young-Wook; Ando, Kotoji; and Chu, Min Cheol
Crack-Healing Behavior of Liquid-Phase-Sintered Silicon Carbide Ceramics. (3) 465
Kim, Young-Wook; Kim, Shin-Han; Wang, Chunmin; and Park, Chul B.
Fabrication of Microcellular Ceramics Using Gaseous Carbon Dioxide. (12) 2231
Kim, Young-Wook See Bae, Byoung-Chan; Lee, Young-Il
Kim, Young-Woon See Lee, Soo-Yong
Kim, Youn Joong See Lee, Sujeong
Kimura, Takashi See Bellucci, Alessandra
Kinemuchi, Yoshiaki; Mouri, Hiroshi; Suzuki, Tsuneo; Suematsu, Hisayuki; Jiang, Weihua; and Yatsui, Kiyoshi
Increase in Phase Transition Temperature of Activated Alumina with Nano-Zirconia Synthesized by Pulsed Wire Discharge. (9) 1522
Kinemuchi, Yoshiaki; Murai, Keiichi; Sangurai, Channalong; Cho, Chu-Hyun; Suematsu, Hisayuki; Jiang, Weihua; and Yatsui, Kiyoshi
Nanosize Powders of Aluminum Nitride Synthesized by Pulsed Wire Discharge. (3) 420
King, Patrick T.; Gorzkowski, Edward P.; Scotch, Adam M.; Rockosi, Derrick J.; Chan, Helen M.; and Harmer, Martin P.
Kinetics of {001} $Pb(Mg_{1/3}Nb_{2/3})O_3$–35 mol% $PbTiO_3$ Single Crystals Grown by Seeded Polycrystal Conversion. (12) 2182
Kirihara, Soshu See Kanehira, Shingo
Kirkland, Timothy P. See Lin, Hua-Tay
Kisielowski, C. See Ziegler, A.
Kitagawa, Kuniyuki See Otsuka, Akihiko
Kitagawa, Yasunori See Suganuma, Motohiro
Kitayama, Mikio See Kaneko, Kenji
Knowles, Kevin M. See Helvoort, Antonius T. J. van
Ko, Jea Seung See Kim, Hae-Won
Ko, Tsun-Fa See Fang, Tsang-Tse
Koak, Jai-Young See Kim, Dong-Hwan
Kobayashi, Hidehiko See Yanase, Ikuo
Koh, Young-Hag; Kim, Hae-Won; Kim, Hyoun-Ee; and Halloran, John W.
Macrochanneled Tetragonal Zirconia Polycrystals Coated by a Calcium Phosphate Layer. (12) 2027
Koh, Young-Hag See Kim, Hae-Won
Kohler, Christopher See Resta, Nicoletta
Kohyama, Akira See Dong, Shaoming; Yang, Wen
Koizumi, Takashi See Goto, Ken
Kokubo, Tadashi See Chen, Qi
Kolodiazhnyi, Taras and Petric, Anthony
Effect of P_{O_2} on Bulk and Grain Boundary Resistance of n-Type $BaTiO_3$ at Cryogenic Temperatures. (9) 1554
Komarneni, Sridhar See Katsuki, Hiroaki
Komatsu, Takayuki
Reply to "Comment on 'Densification Energy during Nanoindentation of Silica Glass'". (12) 2239
Komeya, Katsutoshi See Suehiro, Takayuki
Kondo, Hiroki; Sekino, Tohru; Kusunose, Takafumi; Nakayama, Tadachika; Yamamoto, Yo; Wada, Masashi; Adachi, Tomohiko; and Niihara, Koichi
Solid-Solution Effects of a Small Amount of Nickel Oxide Addition on Phase Stability and Mechanical Properties of Yttria-Stabilized Tetragonal Zirconia Polycrystals. (3) 523
Kondo, Naoki; Asayama, Masahiro; Suzuki, Yoshikazu; and Ohji, Tatsuki
High-Temperature Strength of Sinter-Forged Silicon Nitride with Lutetia Additive. (8) 1430
Kondo, Naoki See She, Jihong; Suzuki, Yoshikazu; Yang, Jian-Feng
Kondoh, Junya; Tomii, Yoichi; and Kawachi, Katsuhiro
Changes in Aging Behavior and Defect Structure of Yttria-Fully-Stabilized ZrO_2 with Sc_2O_3 Doping. (12) 2093
Kong, Jin See Curry, Adam C.
Kong, Young-Min See Kim, Dong-Hwan; Kim, Hae-Won
Korablov, Sergiy F. See Yamasaki, Nakamichi
Korablova, Inna R. See Yamasaki, Nakamichi
Korinek, Sylvie Lartigue and Castaing, Jacques
Slip and Twinning in Polycrystalline Alumina (α-Al_2O_3) Deformed under Hydrostatic Pressure between 600° and 1000°C. (4) 566
Kosec, Marija See Degen, Andrej
Koumoto, Kunihito See Zhu, Peixin
Kozuka, Hiromitsu and Higuchi, Atsushi
Stabilization of Poly(vinylpyrrolidone)-containing Alkoxide Solutions for Thick Sol–Gel Barium Titanate Films. (1) 33
Krell, Andreas; Blank, Paul; Ma, Hongwei; Hutzler, Thomas; and Nebelung, Manfred
Processing of High-Density Submicrometer Al_2O_3 for New Applications. (4) 546
Krell, Andreas; Blank, Paul; Ma, Hongwei; Hutzler, Thomas; van Bruggen, Michel P. B.; and Apetz, Rolf
Transparent Sintered Corundum with High Hardness and Strength. (1) 12
Krell, Andreas and Ma, Hongwei
Performance of Alumina Membranes from New Nanosynthesis in Ultrafiltration and Nanofiltration. (2) 241
Kriven, Waltraud M. See Schmücker, Martin; Kim, Dong-Kyu
Kroeger, Donald M. See Aytug, Tolga
Kruzic, Jamie J. and Ritchie, Robert O.
Determining the Toughness of Ceramics from Vickers Indentations Using the Crack-Opening Displacements: An Experimental Study. (8) 1433
Ku, Chiu-Shan See Deng, Cheng-Ji
Kulwicki, Bernard M. See Meyer, Richard J., Jr.
Kuntz, Joshua See Zhan, Guo-Dong
Kuo, Dong-Hau and Chuang, Po-Yo
Aluminum Silicate Films Obtained by Low-Pressure Metal-Organic Chemical Vapor Deposition. (6) 969
Kurtz, Wolfgang See Gemming, Thomas
Kusunose, Takafumi See Kondo, Hiroki
Kwon, Do-Kyun See Kim, Dong-Wan
Lagerlöf, K. Peter D. See Ikuhara, Yiuchi; Tang, Xiaohong
Lanagan, Michael T. See Kim, Hyo Tae
Lance, Michael J. See Lee, Jinil
Landi, Elena See Pretto, Michele

Lanfredi, Silvania; Dessemond, Laurent; and Rodrigues, Ana C. M.
Effect of Porosity on the Electrical Properties of Polycrystalline Sodium Niobate: I, Electrical Conductivity. (2) 291
Lanfredi, Silvania; Rodrigues, Ana C.M.; and Dessemond, Laurent
Effect of Porosity on the Electrical Properties of Polycrystalline Sodium Niobate, II: Dielectric Behavior. (12) 2103
Lange, Fred F. See Holmquist, Magnus G.
Laval, Jean Paul See Soro, Nibambin
Layrolle, Pierre See Li, Shi Hong
Lee, Byoung-Ki; Jung, Yang-Il; Kang, Suk-Joong L.; and Nowotny, Janusz
{111} Twin Formation and Abnormal Grain Growth in Barium Strontium Titanate. (1) 155
Lee, Do-Kyung See Jung, Byung-Hae
Lee, Dominic F. See Aytug, Tolga
Lee, Dong-Woo See Park, Sung
Lee, Gun Y. See Zhang, Xiao Feng
Lee, Ho-Yong See Kim, Min-Soo; Park, Jong-Keuk
Lee, Hwack Joo; Park, Hyun Min; Cho, Yang Koo; and Nahm, Sahn
Microstructure Characterization of the $(1-x)La_{2/3}TiO_3$-$xLaAlO_3$ System. (8) 1395
Lee, Hyoung R.; Kim, Deug J.; Hwang, Nong M.; and Kim, Doh-Yeon
Role of Vanadium Carbide Additive during Sintering of WC–Co: Mechanism of Grain Growth Inhibition. (1) 152
Lee, Hyukjae and Speyer, Robert F.
Pressureless Sintering of Boron Carbide. (9) 1468
Lee, In-Seop See Kim, Dong-Hwan
Lee, Jae-Chun See Park, Sung
Lee, Jaeho; Lee, Sangkyu; Hackley, Vincent A.; and Paik, Ungyu
Influence of [Ba + Ca]/[Ti + Zr] Ratio on the Interfacial Property of (Ba,Ca)(Ti,Zr)O_3 (BCTZ) Powders in an Aqueous Medium. (6) 1034
Lee, Je-Hun See Ahn, Jung Hyuck; Lee, Jong-Heun; Yoon, Seok-Hyun
Lee, Jeong Yong See Yoo, Dong Chul
Lee, Jinil; Li, Hao; and Lee, Woo Y.
Thermal Stability of a Chemically Vapor Deposited Multilayer Coating Containing Amorphous Silica and Rutile Titania on Hi-Nicalon Fiber. (10) 1797
Lee, Jinil; Li, Hao; Lee, Woo Y.; and Lance, Michael J.
Effects of Oxygen Partial Pressure on the Nucleation Behavior and Morphology of Chemically-Vapor-Deposited Zirconia on Hi-Nicalon Fiber and Si. (12) 2031
Lee, Jong-Heun; Lee, Je Hun; Jung, Young-Soo; and Kim, Doh-Yeon
Effect of Alumina Addition on the Distribution of Intergranular-Liquid Phase during Sintering of 15-mol%-Calcia-Stabilized Zirconia. (9) 1518
Lee, Jong-Sook See Hockey, Bernard J.
Lee, Ju-Hyeon See Park, Sung
Lee, Kang N.; Fox, Dennis S.; Eldridge, Jeffrey I.; Zhu, Dongming; Robinson, Raymond C.; Bansal, Narottam P.; and Miller, Robert A.
Upper Temperature Limit of Environmental Barrier Coatings Based on Mullite and BSAS. (8) 1299
Lee, Moon-Hwan See Suh, Chang-Min
Lee, Sang-Ho; Messing, Gary L.; and Green, David J.
Bending Creep Test to Measure the Viscosity of Porous Materials during Sintering. (6) 877
Lee, Sang-Ho See Kim, Byung-Ki
Lee, Sang-Kee See Takahashi, Koji
Lee, Sangkyu See Lee, Jaeho; Paik, Ungyu
Lee, Shin S. See Zawada, Larry P.
Lee, Soo Y.; Park, Young S.; Hsu, Pei Pei; and McNallan, Michael J.
Synergistic Effects of Water Vapor and Alkali Chloride Vapors on the High-Temperature Corrosion of SiC-Based Ceramics. (8) 1292
Lee, Soo-Yong; Yoo, Sang-Im; Kim, Young-Woon; Hwang, Nong M.; and Kim, Doh-Yeon
Preparation of Dense MgB_2 Bulk Superconductors by Spark Plasma Sintering. (10) 1800
Lee, Su-Hee See Kim, Dong-Hwan
Lee, Sujeong; Kim, Youn Joong; and Moon, Hi-Soo
Energy-Filtering Transmission Electron Microscopy (EF-TEM) Study of a Modulated Structure in Metakaolinite, Represented by a 14 Å Modulation. (1) 174
Lee, William Edward See Hashimoto, Shinobu
Lee, Woo Y. See Lee, Jinil; Tsarenko, Irina
Lee, Young-Il; Kim, Young-Wook; Mitomo, Mamoru; and Kim, Doh-Yeon
Fabrication of Dense Nanostructured Silicon Carbide Ceramics through Two-Step Sintering. (10) 1803
Lehmann, Henry; Pitzer, Dieter; Pracht, Gerhard; Vassen, Robert; and Stöver, Detlef
Thermal Conductivity and Thermal Expansion Coefficients of the Lanthanum Rare-Earth-Element Zirconate System. (8) 1338
Leite, Edson R. See Khan, Ajmal
Lemon, Michael F. See Tan, Guo-Long
Lenčéš, Zoltán; Hirao, Kiyoshi; Yamauchi, Yukihiko; and Kanzaki, Shuzo
Reaction Synthesis of Magnesium Silicon Nitride Powder. (7) 1088
Lenčéš, Zoltán See Benco, L'ubomír
Leonard, Keith J. See Aytug, Tolga
Leonelli, Cristina See Andreola, Fernanda
Lesher, Charles E. See Wan, Julin
Levi, Carlos G.; Sommer, Eric; Terry, Scott G.; Catanoiu, Amalia; and Rühle, Manfred
Alumina Grown during Deposition of Thermal Barrier Coatings on NiCrAlY. (4) 676
Lewton, Susan M. See Fox, Dennis S.
Li, Bo; Zhou, Ji; Li, Qi; Li, Longtu; and Gui, Zhilun
Synthesis of $(Pb,La)(Zr,Ti)O_3$ Inverse Opal Photonic Crystals. (5) 867
Li, Chang-Jiu; Wang, Wei-Ze; and He, Yong
Measurement of Fracture Toughness of Plasma-Sprayed Al_2O_3 Coatings Using a Tapered Double Cantilever Beam Method. (8) 1437
Li, Cun See Yang, Xiaogang
Li, Guang-Xin See Ma, Xin-Pei
Li, Hao See Lee, Jinil
Li, Hong-Ling See Wakabayashi, Yuki
Li, Jianfeng; Liao, Hanlin; Wang, Xiaoyan; and Coddet, Christian
Fractal Perimeters of Polishing-Induced Pull-Outs Present on Polished Cross Sections of Plasma-Sprayed Yttria-Stabilized Zirconia Coatings. (11) 1906
Li, Ji-Guang; Ikegami, Takayasu; Mori, Toshiyuki; and Yajima, Yoshiyuki
Wet-Chemical Routes Leading to Scandia Nanopowders. (9) 1493
Li, Ji-Guang; Ikegami, Takayasu; Wang, Yarong; and Mori, Toshiyuki
10-mol%-Gd_2O_3-Doped CeO_2 Solid Solutions via Carbonate Coprecipitation: A Comparative Study. (6) 915
Li, Jiguang See Sun, Xudong
Li, Jing-Feng; Takagi, Kenta; Ono, Masaru; Pan, Wei; Watanabe, Ryuzo; Almajid, Abdulhakim; and Taya, Minoru
Fabrication and Evaluation of Porous Piezoelectric Ceramics and Porosity-Graded Piezoelectric Actuators. (7) 1094
Li, Jingguo See Gao, Lian
Li, Longtu See Cao, Jiang Li; Chen, RenZheng; Li Bo
Li, Qi See Li, Bo
Li, Shi Hong; de Wijn, Joost R.; Layrolle, Pierre; and de Groot, Klaas
Novel Method to Manufacture Porous Hydroxyapatite by Dual-Phase Mixing. (1) 65
Li, Tao See Khan, Ajmal
Li, Xudong and Edirisinghe, Mohan J.
A New Aluminum Coordination Site in Si-C-Al-N-(O) Ceramics. (12) 2212
Li, Ya-Li See Ishigaki, Takamasa
Li, Yaogang and Gao, Lian
Synthesis and Characterization of Nanocrystalline Niobium Nitride Powders. (7) 1205
Li, Yongxiang See Kan, Yanmei
Liang, Yanan N.; Osendi, Maria Isabel; and Miranzo, Pilar
Effect of Bonding Pressure on Silicon Nitride Joining Using a Nickel-Chromium-Boron Metal Filler. (7) 1226
Liao, Hanlin See Li, Jianfeng
Liao, Su-San See Zhang, Wei
Licci, Francesca; Turilli, Giuseppe; Ferro, Patrizia; and Ciccarone, Antonio
Low-Temperature Synthesis and Properties of $LaMnO_{3+d}$ and $La_{0.67}R_{0.33}MnO_{3+d}$ (R = Ca, Sr, Ba) from Citrate Precursors. (3) 413
Liedtke, Ralf See Qin, Yue-Ling
Liew, Li-Anne See Saravanan, Rajgopal Arunachalam
Lii, Ding-Fwu See Kan, Ming-Chi
Lim, Dae-Young See Kim, Byoung-Kyu
Limaye, Amit U. and Helble, Joseph J.
Effect of Precursor and Solvent on Morphology of Zirconia Nanoparticles Produced by Combustion Aerosol Synthesis. (2) 273
Lin, Hong; Jin, Tetsuro; Dmytruk, Andriy; and Yazawa, Tetsuo
Preparation of a Translucent, Conductive, Porous Nanocomposite. (11) 1991
Lin, Hua-Tay; Ferber, Mattison K.; and Kirkland, Timothy P.
Evaluation of Mechanical Stability of a Commercial Sn88 Silicon Nitride at Intermediate Temperatures. (7) 1176
Lin, Hua-Tay See Pezzotti, Giuseppe
Liu, Yangqiao and Gao, Lian
Effect of 2-Phosphonobutane-1,2,4-tricarboxylic Acid Adsorption on the Stability and Rheological Properties of Aqueous Nanosized 3-mol%-Yttria-Stabilized Tetragonal-Zirconia Polycrystal Suspensions. (7) 1106; Low-Temperature Synthesis of Nanocrystalline Yttrium Aluminum Garnet Powder Using Triethanolamine. (10) 1651
Liu, Z. G. See Bi, Zhaoxia X.
Lloyd, Isabel K. See Xu, Geng-fu
Lofaj, František; Blessing, Gerald V.; and Wiederhorn, Sheldon M.
Ultrasonic Velocity Technique for Nondestructive Quantification of Elastic Moduli Degradation during Creep in Silicon Nitride. (5) 817
Löffler, Lars and Mader, Werner
Transformation Mechanism of the Dehydration of Diaspore. (4) 534
Lombardo, Stephen J. and Feng, Z. C.
Determination of the Minimum Time for Binder Removal and Optimum Geometry for Three-Dimensional Porous Green Bodies. (12) 2087
Lombardo, Stephen J. See Feng, Kai
Lu, Hong-Yang See Huang, Ming-Ren
Lu, Sheng-Guo; Mak, Chee-Leung; and Wong, Kin-Hung
Structural, Dielectric, and Thermal Properties of Strontium Barium Niobate-Doped Fused Silica Nanocomposites. (8) 1333
Lugo, Guillermo Manuel See Sharma, Anju
Luo, Weiwei See Garofalini, Stephen H.
Lupascu, Doru C. See Njiwa, Alain B. Kounga
Ma, Hongwei See Krell, Andreas
Ma, Jingtao; Xie, Zhipeng; Miao, Hezhuo; Zhou, Longjie; Huang, Yong; and Cheng, Yibing
Elimination of Surface Spallation of Alumina Green Bodies Prepared by Acrylamide-Based Gelcasting via Poly(vinylpyrrolidone). (2) 266
Ma, Xin-Pei; Li, Guang-Xin; Shen, Lian; and Jin, Zhi-Hao
Ductile-Mode Material Removal of a Mica–Glass-Ceramic. (6) 1040
Maccagnan, Giorgio See Colombo, Paolo
MacLaren, Ian; Cannon, Rowland M.; Gülgün, Mehmet A.; Voytovych, Rayisa; Popescu-Pogrion, Nicoletta; Scheu, Christina; Täffner, Ulrike; and Rühle, Manfred
Abnormal Grain Growth in Alumina: Synergistic Effects of Yttria and Silica. (4) 650
Mader, Werner See Löffler, Lars
Maeda, Kouji See Nakashima, Shin-ichi
Maeda, Kunihiro See Fujishiro, Yoshinobu; Matsuda, Kazuyuki
Mah, Tai-Il See Keller, Kristin A.
Maier, Joachim See De Souza, Roger A.; Guo, Xin
Majewski, Peter See Rozumek, Michael
Mak, Chee-Leung See Lu, Sheng-Guo
Makishima, Akio See Wakabayashi, Yuki
Makovec, Darko; Drofenik, Miha; and Baker, Judith
Fluorine as a Donor Dopant in Barium Titanate Ceramics. (3) 495
Makovec, Darko See Drofenik, Miha
Malzbender, Jürgen
Comment on "Densification Energy during Nanoindentation of Silica Glass". (12) 2237
Marchi, Juliana; Bressiani, José Carlos; and Bressiani, Ana Helena de A.
Experimental Design Applied to Silicon Carbide Sintering. (7) 1208
Marcus, Philippe See Frémy, Nicolas
Marshall, David B. See Davis, Janet B.
Martin, Christian See Smith, David S.
Martin, Patrick M. See Aytug, Tolga
Martínez, Salvador See Navarro, Melba
Martucci, Alessandro; Pasquale, Mirko; Guglielmi, Massimo; Post, Mike; and Pivin, Jean Claude
Nanostructured Silicon Oxide–Nickel Oxide Sol–Gel Films with Enhanced Optical Carbon Monoxide Gas Sensitivity. (9) 1638
Martucci, Alessandro; Sartori, Sabrina; Muffato, Alessandro; Armelao, Lidia; Di Bartolomeo, Elisabetta; Traversa, Enrico; and Guglielmi, Massimo
Sol–Gel Synthesis of λ-Na_2O-xAl_2O_3 Films. (11) 1965
Masó, Nahum; Beltrán, Hector; Muñoz, Raquel; Julián, Beatriz; Carda, Juan B.; Escribano, Purificación; and Cordoncillo, Eloisa
Optimization of Praseodymium-Doped Cerium Pigment Synthesis Temperature. (3) 425
Mason, Thomas O. See Warschkow, Oliver
Masuda, Yoshitake See Zhu, Peixin
Mates, Thomas See Ragan, Deirdre D.
Matraszek, Aleksandra; Miller, Mirosław; Singheiser, Lorenz; and Hilpert, Klaus
Phase Composition and Vaporization Study of $LaGa_{1-x}Al_xO_3$, $0 \le x \le 1$, and $La_{0.9}Sr_{0.1}Ga_{0.8-x}Al_xMg_{0.2}O_{2.85}$, $x = 0.1, 0.2, 0.3$. (11) 1911
Matsuda, Kazuyuki; Bredikhin, Sergei; Maeda, Kunihiro; and Awano, Masanobu
Optimization of a Composite Working Electrode for a New Family of Electrochemical Cell for NO Decomposition. (7) 1155
Matsui, Koji; Horikoshi, Hideharu; Ohmichi, Nobukatsu; Ohgai, Michiharu; Yoshida, Hidehiro; and Ikuhara, Yuichi
Cubic-Formation and Grain-Growth Mechanisms in Tetragonal Zirconia Polycrystal. (8) 1401
Matsunaga, Katsuyuki See Ikuhara, Yuichi; Nishimura, Hitoshi
Matsuzaki, Takashi See Ogasawara, Toshio
Maurice, Vincent See Frémy, Nicolas
Mayo, Merrilea J. See Suresh, Arun
McNallan, Michael J. See Chen, Linlin; Lee, Soo Y.
McSpadden, Sam B. See Curry, Adam C.
Medraj, Mamoun; Hammond, Robert; Thompson, William T.; and Drew, Robin A. L.
High-Temperature Neutron Diffraction of the AlN–Al_2O_3–Y_2O_3 System. (4) 717
Meguro, Takeshi See Suehiro, Takayuki
Mei, Sen See Yang, Juan
Melandri, Cesare See Sciti, Diletta; Toschi, Francesco

Melcher, Reinhold; Cromme, Peter; Scheffler, Michael; and Greil, Peter
Centrifugal Casting of Thin-Walled Ceramic Tubes from Preceramic Polymers. (7) 1211
Mendoza-Suarez, Guillermo See Escalante-García, Jose I.
Messing, Gary L. See Brosnan, Kristen H.; Lee, Sang-Ho
Mestre, S. See Escardino, A.
Metselaar, Rudi See Fang, Chang Ming
Meyer, Richard J., Jr.; Newnham, Robert E.; Amin, Ahmed; and Kulwicki, Bernard M.
Flextensional Barium Strontium Titanate Actuators. (6) 934
Miao, Hezhuo See Ma, Jingtao
Mihaiu, Susana See Scarlat, Oana
Miller, Mirosław See Matraszek, Aleksandra
Miller, Robert A. See Lee, Kang N.
Milne, Steven J. See Nimmo, William
Milne, Steven John See Naksata, Manoch
Min, Kyoung-hoon See Kim, Sungwon
Miranda, Marcela F. S. See Innocentini, Murilo D. M.
Miranzo, Pilar See Liang, Yanan N.
Miriyala, Naren See More, Karren L.
Mitomo, Mamoru See Gu, Hui; Guo, Shuqi; Lee, Young-Il
Mitra, Ina See Davis, Mark J.
Miyamoto, Yoshinari; Kashiwagi, Takehiko; Hirota, Ken; Yamaguchi, Osamu; Moriguchi, Hideki; Tsuduki, Katsunori; and Ikegaya, Akihiko
Fabrication of New Cemented Carbide Containing Diamond Coated with Nanometer-Sized SiC Particles. (1) 73
Miyamoto, Yoshinari See Kanehira, Shingo
Miyata, Motoyuki See Fujishiro, Yoshinobu
Miyata, Noboru See Chen, Qi
Mizutani, Yoshiki See Yasuda, Hideyuki
Mkrtchyan, Vahram P. See Harutyunyan, Valeri S.
Mogilevsky, Pavel; Hay, Randall S.; Boakye, Emmanuel E.; and Keller, Kristen A.
Evolution of Texture in Rhabdophane-Derived Monazite Coatings. (10) 1767
Mogilevsky, Pavel See Keller, Kristin A.
Mohanan, Pezholil See Surendran, Kuzhichalil Peethambaran
Mohebi, Mohammad Masoud and Evans, Julian R. G.
Combinatorial Ink-Jet Printer for Ceramics: Calibration. (10) 1654
Monteiro, Paulo J. M. See Harutyunyan, Valeri S.
Moon, Hi-Soo See Lee, Sujeong
Moon, Jooho; Kang, Chiwon; and Cho, Seughyun
Microtransfer Molding of Gelcasting Suspensions to Fabricate Barrier Ribs for Plasma Display Panel. (11) 1969
Moon, Robert J. See Xie, Zong-Han
Moraes, Kevin V. and Interrante, Leonard V.
Processing, Fracture Toughness, and Vickers Hardness of Allylhydridopolycarbosilane-Derived Silicon Carbide. (2) 342
More, Karren L.; Tortorelli, Peter F.; Walker, Larry R.; Miriyala, Naren; Price, Jeffrey R.; and Roode, Mark van
High-Temperature Stability of SiC-Based Composites in High-Water-Vapor-Pressure Environments. (8) 1272
More, Karren L. See Tortorelli, Peter F.
Moreira, Roberto Luiz See Dias, Anderson
Moreno, Diego Á. See García, Ana M.
Moreno, Rodrigo See Gutiérrez, Carlos A.
Morgan, Peter E. D. See Davis, Janet B.
Mori, Katsumi See Saito, Noritaka
Mori, Katsunori See Watari, Koji
Mori, Toshiyuki See Li, Ji-Guang
Moriguchi, Hideki See Miyamoto, Yoshinari
Morikawa, Takashi See Yasuda, Hideyuki
Morisada, Yoshiaki See Shimoo, Toshio
Morishita, Masao and Navrotsky, Alexandra
Calorimetric Study of Nickel Molybdate: Heat Capacity, Enthalpy; Gibbs Energy of Formation. (11) 1927
Motyka, Matthew J. See Quinn, George D.
Moure, Carlos; Gutierrez, Dionisio; Peña, Octavio; and Duran, Pedro
Effect of the Processing Parameters on the Crystalline Features of the Solid Solution $Y(Co_xMn_{1-x})O_3$, $x = 0.6$, 0.7. (1) 54
Moure, Carlos See Durán, Pedro
Mouri, Hiroshi See Kinemuchi, Yoshiaki
Muffato, Alessandro See Martucci, Alessandro
Mukasyan, Alexander See Deshpande, Kishori
Mukherjee, Amiya K. See Wan, Julin; Zhan, Guo-Dong
Mulcahy, C. See Pomeroy, Michael J.
Munir, Zuhair A. See Hashishin, Takeshi; Shibuya, Masachika
Muñoz, Raquel See Masó, Nahum
Munroe, Paul See Xie, Zong-Han
Munz, Dietrich See Fett, Theo
Murai, Keiichi See Kinemuchi, Yoshiaki
Murayama, Norimitsu See Suganuma, Motohiro
Nagano, Takayuki See Gu, Hui
Nagaoka, Takaaki See Hotta, Yuji
Nahm, Sahn See Lee, Hwack Joo
Naito, Makio See Abe, Hiroya
Nakahira, Atsushi; Nishimura, Fumihide; Kato, Shinji; Iwata, Misao; and Takeda, Shinichi
Green Fabrication of Porous Ceramics Using an Aqueous Electrophoretic Deposition Process. (7) 1230
Nakamura, Atsutomo See Ikuhara, Yuichi
Nakamura, Kanzou See Hotta, Yuji
Nakamura, Takashi See Chen, Qi
Nakano, Hiromi; Urabe, Kazuyori; and Ikawa, Hiroyuki
Barium Carbonate Phase on the Surfaces of Barium Titanate Particles and *in Situ* Transmission Electron Microscopy Observation of Its Decomposition. (4) 741
Nakano, Hiromi See Watari, Koji
Nakashima, Kunihiko See Saito, Noritaka
Nakashima, Shin-ichi; Higashihira, Makoto; Maeda, Kouji; and Tanaka, Hidehiko
Raman Scattering Characterization of Polytype in Silicon Carbide Ceramics: Comparison with X-ray Diffraction. (5) 823
Nakayama, Tadachika See Kondo, Hiroki
Naksata, Manoch; Brydson, Rik; and Milne, Steven John
Properties of Lead Zirconate Titanate Thin Films Prepared Using a Triol Sol–Gel Route. (9) 1560
Naranjo, Moisés See Becerro, Ana I.
Narisawa, Masaki; Iseki, Takashi; Katase, Yoshiro; Okamura, Kiyohito; Oka, Kunio; and Dohmaru, Takaaki
Ceramization of Reflux-Treated Polymethylsilane Precursors to Silicon Carbide. (2) 227
Navarro, Melba; Ginebra, Maria-Pau; Clément, Jerome; Martínez, Salvador; Avila, Gloria; and Planell, Josep A.
Physicochemical Degradation of Titania-Stabilized Soluble Phosphate Glasses for Medical Applications. (8) 1345
Navrotsky, Alexandra See Morishita, Masao; Zhang, Yahong
Nayar, Suprabha See Sinha, Arvind
Nebelung, Manfred See Krell, Andreas
Nettleship, Ian; Patterson, Burton R.; and Slaughter, William S.
Evolution of Average Microstructural Properties in the Final Stage Sintering of Alumina. (2) 252
Newnham, Robert E. See Meyer, Richard J., Jr.
Ng, Dickon H. L. See Deng, Cheng-Ji
Nguyen, QuynhGiao N. See Fox, Dennis S.
Nho, Jun-Seok See Kim, Byoung-Kyu
Nicholson, Patrick S. See Barnett-Ritcey, Dwayne D.
Niihara, Koichi See Kim, Chang Yeoul; Kondo, Hiroki
Niinomi, Mitsuo See Kasuga, Toshihiro
Nimmo, William; Ali, Naseef J.; Brydson, Rik M.; Calvert, Clair; Hampartsoumian, Edward; Hind, David; and Milne, Steven J.
Formation of Lead Zirconate Titanate Powders by Spray Pyrolysis. (9) 1474
Nishimura, Fumihide See Nakahira, Atsushi
Nishimura, Hitoshi; Matsunaga, Katsuyuki; Saito, Tomohiro; Yamamoto, Takahisa; and Ikuhara, Yuichi
Atomic Structures and Energies of Σ7 Symmetrical Tilt Grain Boundaries in Alumina Bicrystals. (4) 574
Nishimura, Hitoshi See Ikuhara, Yuichi
Nishimura, Toshiyuki See Guo, Shuqi; Tanaka, Hidehiko
Njiwa, Alain B. Kounga; Fett, Theo; Lupascu, Doru C.; and Rödel, Jürgen
Crack-Tip Toughness of a Soft Lead Zirconate Titanate. (11) 1973
Noda, Tetsuji See Yang, Wen; Bellucci, Alessandra
Nogami, Masayuki; Goto, Yoichi; and Kasuga, Toshihiro
Proton Conductivity in Zr^{4+}-Ion-Doped P_2O_5–SiO_2 Porous Glasses. (9) 1504
Nogami, Masayuki See Kasuga, Toshihiro
Nowotny, Janusz See Lee, Byoung-Ki
Nufer, Stefan See Gemming, Thomas
Nunes, Luiz Antônio O. See Schneider, José
Oba, Fumiyasu; Sato, Yukio; Yamamoto, Takahisa; Ikuhara, Yuichi; and Sakuma, Taketo
Current–Voltage Characteristics of Cobalt-Doped Inversion Boundaries in Zinc Oxide Bicrystals. (9) 1616
Oe, Masato See Goto, Ken
Ogasawara, Toshio; Ishikawa, Takashi; and Matsuzaki, Takashi
Thermal Response and Oxidation of Tyranno™-Fiber-Reinforced Si-Ti-C-O Matrix Composites for a Thermal Protection System in High-Enthalpy Dissociated Air. (5) 830
Ohgai, Michiharu See Matsui, Koji
Ohgaki, Masataka and Yamashita, Kimihiro
Preparation of Polymethylmethacrylate-Reinforced Functionally Graded Hydroxyapatite Composites. (8) 1440
Ohji, Tatsuki See She, Jihong; Yang, Jian-Feng; Suzuki, Yoshikazu; Kondo, Naoki; She, Jihong; Deng, Zhen-Yan
Ohmichi, Nobukatsu See Matsui, Koji
Ohnaka, Itsuo See Yasuda, Hideyuki
Ohyanagi, Manshi See Hashishin, Takeshi; Shibuya, Masachika
Oka, Kunio See Narisawa, Masaki
Okada, Akira See Ye, Jiping
Okamura, Kiyohito See Narisawa, Masaki; Shimoo, Toshio
Olevsky, Eugene A. See Tikare, Veena
Oliveira, Marta I. L. L. See Xu, Xin
Oliveira, Samuel L. See Schneider, José
Olivier-Fourcade, Josette See Soro, Nibambin
Olorunyolemi, Tayo See Xu, Geng-fu
Ono, Masaru See Li, Jing-Feng
Opila, Elizabeth J.
Oxidation and Volatilization of Silica Formers in Water Vapor. (8) 1238
Opila, Elizabeth J.; Robinson, R. Craig; Fox, Dennis S.; Wenglarz, Richard A.; and Ferber, Mattison K.
Additive Effects on Si_3N_4 Oxidation/Volatilization in Water Vapor. (8) 1262
Opila, Elizabeth J. See Fox, Dennis S.
Opitz, Mathew R.; Albertsen, Knuth; Beeson, James J.; Hennings, Detlev F.; Routbort, Jules L.; and Randall, Clive A.
Kinetic Process of Reoxidation of Base Metal Technology $BaTiO_3$-Based Multilayer Capacitors. (11) 1879
Osendi, Maria Isabel See Liang, Yanan N.
Ota, Ken'ichi See Pezzotti, Giuseppe
Otani, Shigeki See Bellucci, Alessandra
Otsuka, Akihiko; Yamamoto, Masafumi; Itoh, Takashi; Kitagawa, Kuniyuki; and Hirano, Shin-ichi
Formation of an Environmental Barrier Coating Using DC-RF Hybrid Plasma. (7) 1068; (10) 1823
Ouyang, Lizhi See Ching, Wai-Yim
Ozawa, Naoshi; Yabe, Hiroki; and Yao, Takeshi
Formation of Titania Submicrometer Patterns by the Combination of Synthesis from an Aqueous Solution and Transcription of a Resist Pattern. (11) 1976
Padture, Nitin P. and Wei, Xuezheng
Hydrothermal Synthesis of Thin Films of Barium Titanate Ceramic Nano-tubes at 200°C. (12) 2215
Paik, Ungyu; Lee, Sangkyu; and Hackley, Vincent A.
Influence of Barium Dissolution on the Electrokinetic Properties of Colloidal $BaTiO_3$ in an Aqueous Medium. (10) 1662
Paik, Ungyu See Lee, Jaeho
Pan, Wei See Li, Jing-Feng
Panchula, Martin L. and Ying, Jackie Y.
Nanocrystalline Aluminum Nitride: I. Vapor-Phase Synthesis in a Forced-Flow Reactor. (7) 1114; Nanocrystalline Aluminum Nitride: II, Sintering and Properties. (7) 1121
Panda, Asit B. See Ray, Jagadish C.
Pandolfelli, Victor C. See Innocentini, Murilo D. M.
Panepucci, Horácio See Bonk, Fábio; Schneider, José
Paradis, Paul-François; Yu, Jianding; Ishikawa, Takehiko; and Yoda, Shinichi
Contactless Density Measurement of Liquid Nd-Doped 50%CaO–50%Al_2O_3. (12) 2234
Paranthaman, Mariappan P. See Aytug, Tolga
Pardo, Lorena See Ricote, Jesús
Park, Chan See Bae, Byoung-Chan
Park, Chan Woo; Yoon, Duk Yong; Blendell, John E.; and Handwerker, Carol A.
Singular Grain Boundaries in Alumina and Their Roughening Transition. (4) 603
Park, Chul B. See Kim, Young-Wook
Park, Dong-Soo See Bae, Byoung-Chan
Park, Hyun Min See Lee, Hwack Joo
Park, Jong-Keuk; Kim, Doh-Yeon; Lee, Ho-Yong; Blendell, John; and Handwerker, Carol
Crystallographic-Orientation-Dependent Dissolution Behavior of Sapphire in Anorthite Liquid Containing Chromia. (6) 1014
Park, Sam-Shik See Tanaka, Hidehiko
Park, Sang See Tsarenko, Irina
Park, Sung; Lee, Dong-Woo; Lee, Jae-Chun; and Lee, Ju-Hyeon
Photocatalytic Silver Recovery Using ZnO Nanopowders Synthesized by Modified Glycine-Nitrate Process. (9) 1508
Park, Young S. See Lee, Soo Y.
Parthasarathy, Triplicane A. See Keller, Kristin A.
Paschoal, Carlos William A. See Dias, Anderson
Pascual, Luis See Pascual, Maria J.
Pascual, Maria J.; Pascual, Luis; Valle, Francisco J.; Durán, Alicia; and Berjoan, Rene
Corrosion of Borosilicate Sealing Glasses for Molten Carbonate Fuel Cells. (11) 1918
Pasquale, Mirko See Martucci, Alessandro
Patterson, Burton R. See Nettleship, Ian
Payne, David A. See West, David L.
Pearce, David H. See Boccaccini, Aldo R.
Peascoe, R. A. See Brewer, L. N.
Peden, C. H. F. See Wang, Chong-Min
Pellacani, Gian Carlo See Andreola, Fernanda
Peña, Octavio See Moure, Carlos
Pena, Pilar See Vázquez, Bertha Alicia
Peng, Cheng-Jien See Huang, Ming-Ren
Peng, Zhi See Chen, Wan Ping
Penilla, R. Peña; Bustos, A. Guerrero; and Elizalde, S. Goñi
Zeolite Synthesized by Alkaline Hydrothermal Treatment of Bottom Ash from Combustion of Municipal Solid Wastes. (9) 1527
Perdigón, Ana C. See Becerro, Ana I.
Perini, Katia See Colombo, Paolo
Peters, M. I. and Reimanis, I. E.
Grain Boundary Grooving Studies of Yttrium Aluminum Garnet (YAG) Bicrystals. (5) 870
Petric, Anthony See Kolodiazhnyi, Taras

Pezzotti, Giuseppe; Ota, Ken'ichi; Yamamoto, Yoshifumi; and Lin, Hua-Tay
Elementary Mechanisms behind the High-Temperature Deformation Behavior of Lutetium-Doped Silicon Nitride. (3) 471
Pilon, Laurent and Viskanta, Raymond
Radiation Characteristics of Glass Containing Gas Bubbles. (8) 1313
Pinasco, Paola See Toschi, Francesco
Pint, Bruce A.
Optimization of Reactive-Element Additions to Improve Oxidation Performance of Alumina-Forming Alloys. (4) 686
Pitzer, Dana See Cheng, Jian-Gong
Pitzer, Dieter See Lehmann, Henry
Pivin, Jean Claude See Martucci, Alessandro
Planell, Josep A. See Navarro, Melba
Pomeroy, Michael J.; Mulcahy, C.; and Hampshire, Stuart
Independent Effects of Nitrogen Substitution for Oxygen and Yttrium Substitution for Magnesium on the Properties of Mg-Y-Si-Al-O-N Glasses. (3) 458
Popescu-Pogrion, Nicoletta See MacLaren, Ian
Porter, Wallace D. See Suresh, Arun
Portu, Goffredo de See Toschi, Francesco
Post, Mike See Martucci, Alessandro
Pownceby, Mark I.; Constanti-Carey, Keri K.; and Fisher-White, Michael J.
Subsolidus Phase Relationships in the System Fe_2O_3–Al_2O_3–TiO_2 between 1000° and 1300°C. (6) 975
Poyato, Rosalía See Ricote, Jesús
Pracht, Gerhard See Lehmann, Henry
Pramanik, Panchanan See Ray, Jagadish C.
Pratsinis, Sotiris E. See Tani, Takao
Pretto, Michele; Costa, Anna Luisa; Landi, Elena; Tampieri, Anna; and Galassi, Carmen
Dispersing Behavior of Hydroxyapatite Powders Produced by Wet-Chemical Synthesis. (9) 1534
Price, Jeffrey R. See More, Karren L.
Primig, Robert See Cheng, Jian-Gong
Puertas, Francisca See Fernández-Jiménez, Ana
Qian, Yitai See Yang, Xiaogang
Qiao, Xin See Corbin, Stephen F.
Qin, Xiaomei See Sun, Xudong
Qin, Yue-Ling; Jia, Chun-Lin; Liedtke, Ralf; Waser, Rainer; and Urban, Knut
Transmission Electron Microscopy Investigation of $Pt/Ba_{0.7}Sr_{0.3}TiO_3/Pt$ Capacitors with Different Annealing Processes. (7) 1190
Qiu, Yu and Gao, Lian
Novel Way to Synthesize Nanocrystalline Aluminum Nitride from Coarse Aluminum Powder. (7) 1214
Quinn, George D.
Weibull Effective Volumes and Surfaces for Cylindrical Rods Loaded in Flexure. (3) 475
Quinn, George D.
Weibull Strength Scaling for Standardized Rectangular Flexure Specimens. (3) 508
Quinn, George D.; Green, Patrice; and Xu, Kang
Cracking and the Indentation Size Effect for Knoop Hardness of Glasses. (3) 441
Quinn, George D.; Swab, Jeffrey J.; and Motyka, Matthew J.
Fracture Toughness of a Toughened Silicon Nitride by ASTM C 1421. (6) 1043
Ragan, Deirdre D.; Mates, Thomas; and Clarke, David R.
Effect of Yttrium and Erbium Ions on Epitaxial Phase Transformations in Alumina. (4) 541
Raj, Rishi See Saha, Atanu; Saravanan, Rajgopal Arunachalam; Shah, Sandeep R.
Ram, S.
Dynamics of Formation of Self-Organized Mesoporous $AlO(OH)\cdot\alpha H_2O$ Structure in Al-Metal Surface Hydrolysis in Humid Air. (12) 2037
Ramachandrarao, Patcha See Sinha, Arvind
Randall, Clive A. See Opitz, Mathew R.
Ranninger, Carlos See García, Ana M.
Rawn, Claudia J. See Suresh, Arun
Ray, Jagadish C.; Panda, Asit B.; Saha, Chitta R.; and Pramanik, Panchanan
Synthesis of Niobium(V)-Stabilized Tetragonal Zirconia Nanocrystalline Powders. (3) 514
Reaney, Ian M. See Feteira, Antonio
Rečnik, Aleksander See Daneu, Nina
Reimanis, I. E. See Peters, M. I.
Resta, Nicoletta; Kohler, Christopher; and Trebin, Hans-Rainer
Molecular Dynamics Simulations of Amorphous Si–C–N Ceramics: Composition Dependence of the Atomic Structure. (8) 1409
Reyes, Ena A. Aguilar and Drew, Robin A. L.
Kinetic Study of Amorphous Yttria–Alumina Fibers Using Differential Thermal Analysis. (1) 43
Ricote, Jesús; Poyato, Rosalía; Algueró, Miguel; Pardo, Lorena; Calzada, M. Lourdes; and Chateigner, Daniel
Texture Development in Modified Lead Titanate Thin Films Obtained by Chemical Solution Deposition on Silicon-Based Substrates. (9) 1571
Riley, Frank L. See Biswas, Sampad K.
Riman, Richard E. See Kim, Byoung-Kyu
Ritchie, Robert O. See Kruzic, Jamie J.; Zhang, Xiao Feng; Ziegler, A.
Rixecker, Georg See Schneider, Judy
Robinson, Raymond Craig See Lee, Kang N.; Opila, Elizabeth J.
Rockosi, Derrick J. See King, Patrick T.
Rödel, Jürgen See Njiwa, Alain B. Kounga; Zuo, Ruzhong
Rodrigues, Ana C. M. See Lanfredi, Silvania
Rohrer, Gregory S. See Giocondi, Jennifer L.; Sano, Tomoko
Roncari, Edoardo See Toschi, Francesco
Roode, Mark van See More, Karren L.
Routbort, Jules L. See Opitz, Mathew R.
Rowcliffe, David J. See Kese, Kwadwo
Rozumek, Michael; Majewski, Peter; Sauter, Linda; and Aldinger, Fritz
Homogeneity Region of Strontium- and Magnesium-Containing $LaGaO_3$ at Temperatures between 1100° and 1500°C in Air. (11) 1940
Ru, Hongqiang See Sun, Xudong
Kühle, Manfred See De Souza, Roger A.; Gemming, Thomas; Levi, Carlos G.; MacLaren, Ian
Sachs, Emanuel M. See Uhland, Scott A.
Sadowski, Tomasz and Samborski, Sylwester
Modeling of Porous Ceramics Response to Compressive Loading. (12) 2218
Saha, Atanu; Shah, Sandeep R.; and Raj, Rishi
Amorphous Silicon Carbonitride Fibers Drawn from Alkoxide Modified Ceraset™. (8) 1443
Saha, Atanu See Shah, Sandeep R.
Saha, Chitta R. See Ray, Jagadish C.
Saha, Susanta Kumar See Bose, Susmita
Saito, Noritaka; Kai, Kentaro; Furusho, Shingo; Nakashima, Kunihiko; Mori, Katsumi; and Shimizu, Fumiyuki
Properties of Nitrogen-Containing Yttria–Alumina–Silica Melts and Glasses. (4) 711
Saito, Tomohiro See Nishimura, Hitoshi
Šajgalík, Pavol See Benco, L'ubomír
Sakamoto, Wataru See Ueno, Kengo
Sakka, Yoshio See Tang, Fengqiu; Vasylkiv, Oleg; Zhu, Xinwen
Sakoda, Kazuaki See Kanehira, Shingo
Sakuma, Taketo See Oba, Fumiyasu
Salamone, Samuel M.; Stearns, Laura C.; Bordia, Rajendra K.; and Harmer, Martin P.
Effect of Rigid Inclusions on the Densification and Constitutive Parameters of Liquid-Phase-Sintered $YBa_2Cu_3O_{6+x}$ Powder Compacts. (6) 883
Salvado, I. M. Miranda See Zhang, Mei
Samadhi, Tjokorde W.; Jones, Linda E.; and Clare, Alexis G.
Influence of Carbon on SO_x Emissions from Glass Processing. (12) 2044
Samborski, Sylwester See Sadowski, Tomasz
Sanders, Thomas H., Jr. See Kim, Sung S.
Sangurai, Channalong See Kinemuchi, Yoshiaki
Sano, Tomoko; Saylor, David M.; and Rohrer, Gregory S.
Surface Energy Anisotropy of $SrTiO_3$ at 1400°C in Air. (11) 1933
Sanz, Jesús See Fernández-Jiménez, Ana
Saravanan, Rajgopal Arunachalam; Liew, Li-Anne; Bright, Victor M.; and Raj, Rishi
Integration of Ceramics Research with the Development of a Microsystem. (7) 1217
Sarma, Kumaravinothan See Feteira, Antonio
Sartori, Sabrina See Martucci, Alessandro
Sathish, Shamachary See Druffner, Carl J.
Sathyamurthy, Srivatsan See Aytug, Tolga
Sato, Kimiyasu See Watari, Koji
Sato, Yukio See Oba, Fumiyasu
Sauter, Linda See Rozumek, Michael
Sayir, Ali See Davis, Janet B.
Saylor, David M. See Sano, Tomoko
Scarlat, Oana; Mihaiu, Susana; Aldica, Gh.; Zaharescu, Maria; and Groza, Joanna R.
Enhanced Properties of Tin(IV) Oxide Based Materials by Field-Activated Sintering. (6) 893
Scattergood, Ronald O. See Curry, Adam C.
Scheffler, Matthias See Wang, Xiao-Gang
Scheffler, Michael See Melcher, Reinhold
Schehl, Martin See De Aza, Antonio H.
Schell, Julia See Heule, Martin
Scheu, Christina See MacLaren, Ian
Schmücker, Martin; Schneider, Hartmut; and Kriven, Waltraud M.
Indentation-Induced Amorphization in Mullite Single Crystals. (10) 1821
Schneider, Hartmut See Schmücker, Martin
Schneider, José; Oliveira, Samuel L.; Nunes, Luiz Antônio O.; and Panepucci, Horácio
Local Structure of Sodium Aluminum Metaphosphate Glasses. (2) 317
Schneider, José See Bonk, Fábio
Schneider, Judy; Biswas, Koushik; Rixecker, Georg; and Aldinger, Fritz
Microstructural Changes in Liquid-Phase-Sintered Silicon Carbide during Creep in an Oxidizing Environment. (3) 501
Schreiter, Matthias See Cheng, Jian-Gong
Sciti, Diletta; Guicciardi, Stefano; Melandri, Cesare; and Bellosi, Alida
High-Temperature Resistant Composites in the AlN–SiC–$MoSi_2$ System. (10) 1720
Scotch, Adam M. See Khan, Ajmal; King, Patrick T.
Seal, Sudipta See Shukla, Satyajit; Wannaparhun, Surasak
Sebastian, Mailadil Thomas See Surendran, Kuzhichalil Peethambaran
Segawa, Hiyoro; Adachi, Shinichi; Arai, Yasuhiko; and Yoshida, Kazuaki
Fine Patterning of Hybrid Titania Films by Ultraviolet Irradiation. (5) 761
Sekino, Tohru See Kim, Chang Yeoul; Kondo, Hiroki
Senz, Stephan See Sun, Duochun
Sergo, Valter See Deghenghi, Gianluca
Shah, Sandeep R.; Saha, Atanu; and Raj, Rishi
Influence of Distributed Particle Size on the Determination of the Parabolic Rate Constant for Oxidation by the Powder Method. (2) 351
Shah, Sandeep R. See Saha, Atanu
Sharma, Anju; Jain, Himanshu; Carnali, Joseph O.; and Lugo, Guillermo Manuel
Influence of the Manufacturing Process on Corrosion Behavior of Soda-Lime-Silicate Glassware. (10) 1669
She, Jihong; Yang, Jian-Feng; Jayaseelan, Daniel Doni; Kondo, Naoki; Ohji, Tatsuki; Kanzaki, Shuzo; and Inagaki, Yoshiaki
Thermal Shock Behavior of Isotropic and Anisotropic Porous Silicon Nitride. (4) 738
She, Jihong; Yang, Jian-Feng; Jayaseelan, Daniel Doni; Ueno, Shunkichi; Kondo, Naoki; Ohji, Tatsuki; and Kanzaki, Shuzo
Strength of Silicon Nitride after Thermal Shock. (9) 1619
She, Ji-Hong See Yang, Jian-Feng
Shen, B. See Bi, Zhaoxia X.
Shen, Junwu and Green, David J.
Variable-Temperature Ion-Exchanged Engineered Stress Profile (ESP) Glasses. (11) 1979
Shen, Lian See Ma, Xin-Pei
Shen, Ze Xiang See Gao, Xingsen
Shen, Zhijian See Grins, Jekabs
Shepard, Chester L.; Cannon, Bret D.; and Khaleel, Mohammad A.
Measurement of Internal Stress in Glass Articles. (8) 1353
Shi, Er-Wei See Chen, Zhi-Zhan
Shi, Y. See Bi, Zhaoxia X.
Shibuya, Masachika; Kawata, Makoto; Ohyanagi, Manshi; and Munir, Zuhair A.
Titanium Diboride–Tungsten Diboride Solid Solutions Formed by Induction-Field-Activated Combustion Synthesis. (4) 706
Shibuya, Masachika; Yoneda, Takanori; Yamamoto, Yutaka; Ohyanagi, Manshi; and Munir, Zuhair A.
Effect of Ni and Co Additives on Phase Decomposition in TiB_2–WB_2 Solid Solutions Formed by Induction Field Activated Combustion Synthesis. (2) 354
Shih, Albert J. See Curry, Adam C.
Shih, Wan Y. See Gu, Huiming
Shih, Wei-Heng See Gu, Huiming
Shimada, Shiro and Hasegawa, Marika
Preparation of Titanium Nitride Films from Amide Precursors Synthesized by Electrolysis. (1) 177
Shimada, Shiro See Kawano, Shuichi
Shimizu, Fumiyuki See Saito, Noritaka
Shimoo, Toshio; Morisada, Yoshiaki; and Okamura, Kiyohito
Suppression of Active Oxidation of Polycarbosilane-Derived Silicon Carbide Fibers by Preoxidation at High Oxygen Pressure. (5) 838
Shin, Dong-Woo See Tanaka, Hidehiko
Shinohara, Nobuhiro See Abe, Hiroya
Shobu, Kazuhisa See Tian, Jintao
Shuba, R. See Zenotchkine, M.
Shukla, Satyajit and Seal, Sudipta
Electroless Copper Coating of Zirconia Utilizing Palladium Catalyst. (2) 279
Shukla, Vijay See Zhou, Xinzhang
Sigle, Wilfried See De Souza, Roger A.; Guo, Xin
Sigoli, Fernando Aparecido; Feliciano, Sérgio; Giotto, Marcus Vinicius; Davolos, Marian Rosaly; and Júnior, Miguel Jafelicci
Porous Silica Matrix Obtained from Pyrex Glass by Hydrothermal Treatment: Characterization and Nature of the Porosity. (7) 1196
Siligardi, Cristina See Andreola, Fernanda
Silva, Rui See Belmonte, Manuel
Silva, Vitor A. See Belmonte, Manuel
Sinclair, Derek C. See Feteira, Antonio
Singheiser, Lorenz See Matraszek, Aleksandra
Sinha, Arvind; Nayar, Suprabha; Agrawal, Archana; Bhattacharyya, Debasish; and Ramachandrarao, Patcha
Synthesis of Nanosized and Microporous Precipitated Hydroxyapatite in Synthetic Polymers and Biopolymers. (2) 357
Skorokhod, Valeriy V. See Vasylkiv, Oleg
Slamovich, Elliott B. See Xu, Huiwen
Slaughter, William S. See Nettleship, Ian

Smith, David S.; Fayette, Sylvain; Grandjean, Sylvie; Martin, Christian; Telle, Rainer; and Tonnessen, Thorsten
Thermal Resistance of Grain Boundaries in Alumina Ceramics and Refractories. (1) 105
Smith, John R. See Wang, Xiao-Gang
Sobrados, Isabel See Fernández-Jiménez, Ana
Sohn, Sang-Ho See Jung, Byung-Hae
Sokolov, Sergey; Bell, David; and Stein, Andreas
Preparation and Characterization of Macroporous α-Alumina. (9) 1481
Sommer, Eric See Levi, Carlos G.
Soro, Nihambin; Aldon, Laurent; Olivier-Fourcade, Josette; Jumas, Jean Claude; Laval, Jean Paul; and Blanchart, Philippe
Role of Iron in Mullite Formation from Kaolins by Mössbauer Spectroscopy and Rietveld Refinement. (1) 129
Sousa, F. Cristina Gomes de and Evans, Julian R. G.
Sintered Hydroxyapatite Latticework for Bone Substitute. (3) 517
Specht, Eliot D. See Aytug, Tolga
Speyer, Robert F. See Lee, Hyukjae
Staehler, James See Zawada, Larry P.
Stearns, Laura C. See Salamone, Samuel M.
Steel, Steve See Zawada, Larry P.
Stein, Andreas See Sokolov, Sergey
Stevenson, Jeffry W. See Chou, Yeong-shyung
Stöver, Detlef See Lehmann, Henry
Suda, Akihiko See Hirano, Masanori
Suehiro, Takayuki; Hirosaki, Naoto; Terao, Ryo; Tatami, Junichi; Meguro, Takeshi; and Komeya, Katsutoshi
Synthesis of Aluminum Nitride Nanopowder by Gas-Reduction–Nitridation Method. (6) 1046
Suematsu, Hisayuki See Kinemuchi, Yoshiaki
Suganuma, Motohiro; Kitagawa, Yasunori; Wada, Shigetaka; and Murayama, Norimitsu
Pulsed Electric Current Sintering of Silicon Nitride. (3) 387
Sugiyama, Akira See Yasuda, Hideyuki
Suh, Chang-Min; Lee, Moon-Hwan; Hwang, Byung-Won; and Kim, Sung-Ho
Damage Behavior in Ceramic Plasma-Coated and Uncoated Glass with Steel-Ball Impact. (7) 1220
Suh, Jung Ju and Han, Young Ho
Quantitative Analysis of Zinc Vaporization from Manganese Zinc Ferrites. (5) 765
Sun, Duochun; Senz, Stephan; and Hesse, Dietrich
Topotaxial Formation of $Mg_4Nb_2O_9$ and $MgNb_2O_6$ Thin Films on MgO (001) Single Crystals by Vapor–Solid Reaction. (6) 1049
Sun, Jing; Gao, Lian; and Zhang, Qinghong
Synthesizing and Comparing the Photocatalytic Properties of High Surface Area Rutile and Anatase Titania Nanoparticles. (10) 1677
Sun, Xudong; Li, Jiguang; Zhang, Fang; Qin, Xiaomei; Xiu, Zhimeng; Ru, Hongqiang; and You, Jian
Synthesis of Nanocrystalline α-Al_2O_3 Powders from Nanometric Ammonium Aluminum Carbonate Hydroxide. (8) 1321
Sun, Zheng Ming See Zhang, Zhe-Feng
Sung, James See Kan, Ming-Chi
Supothina, Sitthisuntorn; De Guire, Mark R.; and Heuer, Arthur H.
Nanocrystalline Tin Oxide Thin Films via Liquid Flow Deposition. (12) 2074
Surendran, Kuzhichalil Peethambaran; Varma, Manoj Raama; Mohanan, Pezholil; and Sebastian, Mailadil Thomas
Microwave Dielectric Properties of $RE_{1-x}RE'_xTiNbO_6$ [RE=Pr, Nd, Sm; RE'=Gd, Dy, Y] Ceramics. (10) 1695
Suresh, Arun; Mayo, Merrilea J.; Porter, Wallace D.; and Rawn, Claudia J.
Crystallite and Grain-Size-Dependent Phase Transformations in Yttria-Doped Zirconia. (2) 360
Suvorov, Danilo See Valant, Matjaz
Suzuki, Takayuki See Harada, Yoshihisa
Suzuki, Tohru S. See Zhu, Xinwen
Suzuki, Tsuneo See Kinemuchi, Yoshiaki
Suzuki, Yoshikazu; Kondo, Naoki; and Ohji, Tatsuki
Reactive Synthesis of a Porous Calcium Zirconate/Spinel Composite with Idiomorphic Spinel Grains. (7) 1128
Suzuki, Yoshikazu See Kondo, Naoki
Swab, Jeffrey J. See Quinn, George D.
Tabata, Shuhei See Hirata, Yoshihiro
Täffner, Ulrike See MacLaren, Ian
Taira, Masanori See Ichinose, Hiromichi
Takagi, Hideki See Hatanaka, Kenji
Takagi, Kenta See Li, Jing-Feng
Takahashi, Junichi See Kawano, Shuichi
Takahashi, Koji; Yokouchi, Masahiro; Lee, Sang-Kee; and Ando, Kotoji
Crack-Healing Behavior of Al_2O_3 Toughened by SiC Whiskers. (12) 2143
Takatori, Kazumasa See Tani, Takao
Takeda, Mitsuo Wada See Kanchira, Shingo
Takeda, Shinichi See Nakahira, Atsushi
Talbot, Jan B. See Trinh, Hung Van
Tamai, Sachiko See Yanase, Ikuo
Tampieri, Anna See Pretto, Michele
Tan, Guo-Long; Lemon, Michael F.; and French, Roger H.
Optical Properties and London Dispersion Forces of Amorphous Silica Determined by Vacuum Ultraviolet Spectroscopy and Spectroscopic Ellipsometry. (11) 1885
Tanaka, Hidehiko; Hirosaki, Naoto; Nishimura, Toshiyuki; Shin, Dong-Woo; and Park, Sam-Shik
Nonequiaxial Grain Growth and Polytype Transformation of Sintered α-Silicon Carbide and β-Silicon Carbide. (12) 2222
Tanaka, Hidehiko See Nakashima, Shin-ichi
Tanaka, Kenji See Kamiya, Hidehiro
Tang, Fengqiu; Fudouzi, Hiroshi; and Sakka, Yoshio
Fabrication of Macroporous Alumina with Tailored Porosity. (12) 2050
Tang, Fengqiu See Zhu, Xinwen
Tang, Xiaohong; Lagerlöf, K. Peter D.; and Heuer, Arthur H.
Determination of Pipe Diffusion Coefficients in Undoped and Magnesia-Doped Sapphire (α-Al_2O_3): A Study Based on Annihilation of Dislocation Dipoles. (4) 560
Tani, Takao; Watanabe, Naoyoshi; Takatori, Kazumasa; and Pratsinis, Sotiris E.
Morphology of Oxide Particles Made by the Emulsion Combustion Method. (6) 898
Tartaj, Jesus See Durán, Pedro
Tatami, Junichi See Suehiro, Takayuki
Taya, Minoru See Li, Jing-Feng
Telle, Rainer See Smith, David S.
Terao, Ryo See Suehiro, Takayuki
Terry, Scott G. See Levi, Carlos G.
Thangadurai, Venkataraman; Kaack, Heiko; and Weppner, Werner J. F.
Novel Fast Lithium Ion Conduction in Garnet-Type $Li_5La_3M_2O_{12}$ (M = Nb, Ta). (3) 437
Thevuthasan, Suntharampillai See Wang, Chong-Min
Thompson, William T. See Medraj, Mamoun
Thorogood, Gordon J. See Vance, Eric R.
Thun, Gerhard See Fett, Theo
Tian, Jintao and Shobu, Kazuhisa
Fabrication of Silicon Carbide–Mullite Composite by Melt Infiltration. (1) 39; Improvement in the Oxidation Resistance of Oxide-Matrix Silicon Carbide-Particulate Composites by Mullite Infiltration. (10) 1806
Tien, Tseng-Ying See Wang, Lingling
Tikare, Veena; Braginsky, Michael; and Olevsky, Eugene A.
Numerical Simulation of Solid-State Sintering: I, Sintering of Three Particles. (1) 49
Tomii, Yoichi See Kondoh, Junya
Tomokiyo, Yoshitsugu See Kaneko, Kenji
Tonnessen, Thorsten See Smith, David S.
Torrecillas, Ramón See De Aza, Antonio H.
Tortorelli, Peter F. and More, Karren L.
Effects of High Water-Vapor Pressure on Oxidation of Silicon Carbide at 1200°C. (8) 1249
Tortorelli, Peter F. See More, Karren L.
Toschi, Francesco; Melandri, Cesare; Pinasco, Paola; Roncari, Edoardo; Guicciardi, Stefano; and Portu, Goffredo de
Influence of Residual Stresses on the Wear Behavior of Alumina/Alumina–Zirconia Laminated Composites. (9) 1547
Traversa, Enrico See Martucci, Alessandro
Trebin, Hans-Rainer See Resta, Nicoletta
Trillo, José M. See Becerro, Ana I.
Trinh, Hung Van and Talbot, Jan B.
Electrodeposition Method for Terminals of Multilayer Ceramic Capacitors. (6) 905
Tsarenko, Irina; Park, Sang; Du, Honghua; and Lee, Woo Y.
Sol–Gel Alumina Coating for Improved Cyclic Oxidation Resistance of Silicon Nitride. (9) 1622
Tsuduki, Katsunori See Miyamoto, Yoshinari
Tsugoshi, Takahisa See Hotta, Yuji
Turilli, Giuseppe See Licci, Francesca
Ubaldini, Alberto; Buscaglia, Vincenzo; Uliana, Claudio; Costa, Giorgio; and Ferretti, Maurizio
Kinetics and Mechanism of Formation of Barium Zirconate from Barium Carbonate and Zirconia Powders. (1) 19
Uematsu, Keizo See Abe, Hiroya
Ueno, Kengo; Sakamoto, Wataru; Yogo, Toshinobu; and Hirano, Shin-ichi
Processing of Novel Strontium Titanate-Based Thin-Film Varistors by Chemical Solution Deposition. (1) 99
Ueno, Shunkichi See She, Jihong
Uhland, Scott A.; Cima, Michael J.; and Sachs, Emanuel M.
Additive-Enhanced Redispersion of Ceramic Agglomerates. (9) 1487
Ujihira, Yusuke See Wakabayashi, Yuki
Uliana, Claudio See Ubaldini, Alberto
Urabe, Kazuyori See Nakano, Hiromi; Watari, Koji
Urban, Knut See Qin, Yue-Ling
Uribe, Rafael and Baudín, Carmen
Influence of a Dispersion of Aluminum Titanate Particles of Controlled Size on the Thermal Shock Resistance of Alumina. (5) 846
Valant, Matjaz and Suvorov, Danilo
Dielectric Properties of the Fluorite-like Bi_2O_3–Nb_2O_5 Solid Solution and the Tetragonal Bi_3NbO_7. (6) 939
Valcárcel, Víctor; Cerecedo, Carmen; and Guitián, Francisco
Method for Production of α-Alumina Whiskers via Vapor–Liquid–Solid Deposition. (10) 1683
Valle, Francisco J. See Pascual, Maria J.
van Bruggen, Michel P. B. See Krell, Andreas
Vance, Eric R.; Ball, Clifford J.; Begg, Bruce D.; Carter, Melody L.; Day, R. Arthur; and Thorogood, Gordon J.
Pu, U, and Hf Incorporation in Gd Silicate Apatite. (7) 1223
Varma, Arvind See Deshpande, Kishori
Varma, Manoj Raama See Surendran, Kuzhichalil Peethambaran
Vassen, Robert See Lehmann, Henry
Vasylkiv, Oleg; Sakka, Yoshio; and Skorokhod, Valeriy V.
Low-Temperature Processing and Mechanical Properties of Zirconia and Zirconia–Alumina Nanoceramics. (2) 299
Vázquez, Bertha Alicia; Caballero, Angel; and Pena, Pilar
Quaternary System Al_2O_3–CaO–MgO–SiO_2: I. Study of the Crystallization Volume of Al_2O_3. (12) 2195
Vilarinho, Paula M. See Zhang, Mei
Villora, José M. See García, Ana M.
Viskanta, Raymond See Pilon, Laurent
Vohs, John M. See Boaro, Martha
Voytovych, Rayisa See MacLaren, Ian
Wada, Masashi See Kondo, Hiroki
Wada, Shigetaka See Suganuma, Motohiro
Wagh, Arun S.; Grover, Susan; and Jeong, Seung Y.
Chemically Bonded Phosphate Ceramics: II, Warm-Temperature Process for Alumina Ceramics. (11) 1845
Wagh, Arun S. and Jeong, Seung Y.
Chemically Bonded Phosphate Ceramics: I, A Dissolution Model of Formation. (11) 1838; Chemically Bonded Phosphate Ceramics: III, Reduction Mechanism and Its Application to Iron Phosphate Ceramics. (11) 1850
Wakabayashi, Yuki; Ito, Kenji; Li, Hong-Ling; Ujihira, Yusuke; Kamitani, Kazuya; Inoue, Hiroyuki; and Makishima, Akio
Positronium Annihilation Study of Porosity in Silica Xerogels Prepared by a Sol–Gel Process. (9) 1625
Wakai, Fumihiro See Gu, Hui
Waku, Yoshiharu See Harada, Yoshihisa; Yasuda, Hideyuki
Walker, Larry R. See More, Karren L.
Wan, Julin; Gasch, Matthew J.; Lesher, Charles E.; and Mukherjee, Amiya K.
High-Resolution Transmission Electron Microscopy Study of the Microstructural Development of a Silicon Carbonitride Nanocomposite. (5) 857
Wan, Julin; Gasch, Matthew J.; and Mukherjee, Amiya K.
Silicon Nitride–Silicon Carbide Nancocomposites Fabricated by Electric-Field-Assisted Sintering. (3) 526
Wan, Julin See Zhan, Guo-Dong
Wang, Chong-Min; Thevuthasan, Suntharampillai; and Peden, C. H. F.
Interface Structure of an Epitaxial Cubic Ceria Film on Cubic Zirconia. (2) 363
Wang, Chunmin See Kim, Young-Wook
Wang, Gang; Jiang, Wan; Bai, Guangzhao; and Wu, Libin
Effect of Addition of Oxides on Low-Temperature Oxidation of Molybdenum Disilicide. (4) 731
Wang, John See Gao, Xingsen
Wang, Lingling; Tien, Tseng-Ying; and Chen, I-Wei
Formation of β-Silicon Nitride Crystals from (Si,Al,Mg,Y)(O,N) Liquid: I, Phase, Composition, and Shape Evolutions. (9) 1578; Formation of β-Silicon Nitride Crystals from (Si,Al,Mg,Y)(O,N) Liquid: II, Population Dynamics and Coarsening Kinetics. (9) 1586
Wang, Peiling See Chi, Miaofang; Kan, Yanmei
Wang, Wei-Ze See Li, Chang-Jiu
Wang, X. S. See Bi, Zhaoxia X.
Wang, Xiao-Gang; Smith, John R.; and Scheffler, Matthias
Adhesion of Copper and Alumina from First Principles. (4) 696
Wang, Xiaohui See Chen, RenZheng; Cao, Jiang Li
Wang, Xiaoxing; Chan, Helen Lai-Wa; and Choy, Chung-Loong
$(Bi_{1/2}Na_{1/2})TiO_3$–$Ba(Cu_{1/2}W_{1/2})O_3$ Lead-Free Piezoelectric Ceramics. (10) 1809
Wang, Xiaoyan See Li, Jianfeng
Wang, Xin See Chi, Miaofang
Wang, Yarong See Li, Ji-Guang
Wang, Yong-Ling See Xiang, Ping-Hua
Wang, Yu See Chen, Wan Ping
Wannaparhun, Surasak and Seal, Sudipta
Combined Spectroscopic and Thermodynamic Investigation of Nextel-720 Fiber/Alumina Ceramic-Matrix Composite in Air and Water Vapor at 1100°C. (9) 1628
Warschkow, Oliver; Ellis, Donald E.; González, Gabriela B.; and Mason, Thomas O.
Defect Structures of Tin-Doped Indium Oxide. (10) 1700; Defect Cluster Aggregation and Nonreducibility in Tin-Doped Indium Oxide. (10) 1707
Waser, Rainer See Qin, Yue-Ling
Watanabe, Naoyoshi See Tani, Takao

Watanabe, Ryuzo See Li, Jing-Feng
Watari, Koji; Nakano, Hiromi; Sato, Kimiyasu; Urabe, Kazuyoshi; Ishizaki, Kozo; Cao, Shixun; and Mori, Katsunori
Effect of Grain Boundaries on Thermal Conductivity of Silicon Carbide Ceramic at 5 to 1300 K. (10) 1812
Watari, Koji See Hotta, Yuji
Wei, Chih-Hung and Jean, Jau-Ho
Low-Fire Processing $(Ca_{1-x}Nd_{2x/3})TiO_3$ Microwave Ceramics. (1) 93
Wei, Xuezheng See Padture, Nitin P.
Wenglarz, Richard A. See Opila, Elizabeth J.
Weppner, Werner J. F. See Thangadurai, Venkataraman
Wersing, Wolfram See Cheng, Jian-Gong
West, David L. and Payne, David A.
Preparation of $0.95Bi_{1/2}Na_{1/2}TiO_3$-$0.05BaTiO_3$ Ceramics by an Aqueous Citrate-Gel Route. (1) 192; Microstructure Development in Reactive-Templated Grain Growth of $Bi_{1/2}Na_{1/2}TiO_3$-Based Ceramics: Template and Formulation Effects. (5) 769; Reactive-Templated Grain Growth of $Bi_{1/2}(Na,K)_{1/2}TiO_3$: Effects of Formulation on Texture Development. (7) 1132
Wiederhorn, Sheldon M. See Hockey, Bernard J.; Lofaj, František
Wilson, Otto C., Jr. See Xu, Geng-fu
Wong, Kin-Hung See Lu, Sheng-Guo
Wu, Libin See Wang, Gang
Xiang, Ping-Hua; Dong, Xian-Lin; Feng, Chu-De; and Wang, Yong-Ling
Fabrication of NiO Nanoparticle-Coated Lead Zirconate Titanate Powders by the Heterogeneous Precipitation Method. (9) 1631
Xiao, Bing See Chen, Zhi-Zhan
Xie, Zhipeng See Ma, Jingtao
Xie, Zong-Han; Hoffman, Mark; Moon, Robert J.; Munroe, Paul; and Cheng, Yi-Bing
Scratch Damage in Ceramics: Role of Microstructure. (1) 141
Xiu, Zhimeng See Sun, Xudong
Xu, Geng-fu; Olorunyolemi, Tayo; Carmel, Yuval; Lloyd, Isabel K.; and Wilson, Otto C., Jr.
Design and Construction of Insulation Configuration for Ultra High-Temperature Microwave Processing of Ceramics. (12) 2082
Xu, Huarui and Gao, Lian
Tetragonal Nanocrystalline Barium Titanate Powder: Preparation, Characterization, and Dielectric Properties. (1) 203
Xu, Huiwen; Bowman, Keith J.; and Slamovich, Elliott B.
Hydrothermal Synthesis of Bismuth Titanate Powders. (10) 1815
Xu, Kang See Quinn, George D.
Xu, Xin; Oliveira, Marta I. L. L.; and Ferreira, José M. F.
α-SiAlON Ceramics Obtained by Slip Casting and Pressureless Sintering. (2) 366
Xu, Yong-Nian See Ching, Wai-Yim
Xue, Junmin See Gao, Xingsen
Yabe, Hiroki See Ozawa, Naoshi
Yajima, Yoshiyuki See Li, Ji-Guang
Yamaguchi, Akira See Hashimoto, Shinobu; Inoue, Koji
Yamaguchi, Osamu See Miyamoto, Yoshinari
Yamamoto, Masafumi See Otsuka, Akihiko
Yamamoto, Takahisa See Ikuhara, Yuichi; Nishimura, Hitoshi; Oba, Fumiyasu
Yamamoto, Takeshi See Hashishin, Takeshi
Yamamoto, Yo See Kondo, Hiroki
Yamamoto, Yoshifumi See Pezzotti, Giuseppe
Yamamoto, Yoshinobu See Guo, Shuqi
Yamamoto, Yutaka See Shibuya, Masachika
Yamasaki, Nakamichi; Korablova, Inna R.; and Korablov, Sergiy F.
Formation of a Highly Protective Amorphous Aluminum Silicate Layer on Steel during Granite–Dry Steam Interaction. (6) 1061
Yamashita, Kimihiro See Ohgaki, Masataka
Yamauchi, Yukihiko See Hyuga, Hideki; Lenčéš, Zoltán; Zhou, You
Yan, Dongsheng See Kan, Yanmei
Yan, Yan See Yang, Xiaogang
Yanase, Ikuo; Tamai, Sachiko; and Kobayashi, Hidehiko
Low-Thermal-Expansion Properties of Sodium- and Lithium-Substituted Cubic Cesium Leucite Compounds. (8) 1360
Yang, Jian-Feng; Zhang, Guo-Jun; Kondo, Naoki; She, Ji-Hong; Jin, Zhi-Hao; Ohji, Tatsuki; and Kanzaki, Shuzo
Porous 2H-Silicon Carbide Ceramics Fabricated by Carbothermal Reaction between Silicon Nitride and Carbon. (6) 910
Yang, Jian-Feng See She, Jihong; Deng, Zhen-Yan
Yang, Juan; Mei, Sen; and Ferreira, José M. F.
Hydrothermal Synthesis of Submicrometer α-Alumina from Seeded Tetraethylammonium Hydroxide-Peptized Aluminum Hydroxide. (12) 2055
Yang, Lihua See Yang, Xiaogang
Yang, Wen; Kohyama, Akira; Katoh, Yutai; Araki, Hiroshi; Yu, Jinnan; and Noda, Tetsuji
Effect of Carbon and Silicon Carbide/Carbon Interlayers on the Mechanical Behavior of Tyranno-SA-Fiber-Reinforced Silicon Carbide-Matrix Composites. (5) 851
Yang, Xiaogang; Li, Cun; Yang, Lihua; Yan, Yan; and Qian, Yitai
Reduction–Nitridation Synthesis of Titanium Nitride Nanocrystals. (1) 206
Yao, Takeshi See Ozawa, Naoshi
Yasuda, Hideyuki; Mizutani, Yoshiki; Ohnaka, Itsuo; Sugiyama, Akira; Morikawa, Takashi; and Waku, Yoshiharu
Undercooled Melt Formation and Shaping of Alumina–Yttrium Aluminum Garnet Eutectic Ceramics. (10) 1818
Yasuoka, Masaki See Hotta, Yuji
Yatsui, Kiyoshi See Kinemuchi, Yoshiaki
Yau, Man-Yan See Deng, Cheng-Ji
Yazawa, Tetsuo See Lin, Hong
Ye, Feng; Hoffmann, Michael J.; Holzer, Stefan; Zhou, Yu; and Iwasa, Mikio
Effect of the Amount of Additives and Post-Heat Treatment on the Microstructure and Mechanical Properties of Yttrium–α-Sialon Ceramics. (12) 2136
Ye, Haihui See Chen, Linlin
Ye, Jiping and Okada, Akira
Microthermal Analysis of Heat Conduction in Silicon Nitrides. (8) 1365
Ying, Jackie Y. See Panchula, Martin L.
Yoda, Shinichi See Paradis, Paul-François
Yogo, Toshinobu See Ueno, Kengo
Yokota, Hiroshi and Ibukiyama, Masahiro
Microstructure Tailoring for High Thermal Conductivity of β-Si_3N_4 Ceramics. (1) 197
Yokouchi, Masahiro See Takahashi, Koji
Yoneda, Takanori See Shibuya, Masachika
Yonezawa, Tetsu See Zhu, Peixin
Yoo, Dong Chul; Lee, Jeong Yong; Kim, Ik Soo; and Kim, Yong Tae
Two-Layer Crystallization of Amorphous $YMnO_3$ Thin Films on Si (100) Substrates. (1) 149
Yoo, Sang-Im See Lee, Soo-Yong
Yoon, Duk Yong See Kim, Mi Jin; Park, Chan Woo
Yoon, Ki Hyun See Kim, Jae Beom; Cho, Joon Yeob
Yoon, Seok-Hyun; Lee, Je-Hun; Kim, Doh-Yeon; and Hwang, Nong M.
Effect of the Liquid-Phase Characteristic on the Microstructures and Dielectric Properties of Donor-(Niobium) and Acceptor- (Magnesium) Doped Barium Titanate. (1) 88
Yoshida, Hidehiro See Matsui, Koji
Yoshida, Hideto See Fukuda, Koichiro
Yoshida, Kazuaki See Segawa, Hiyoro
Yoshiyasu, Takashi See Kamiya, Hidehiro
You, Jian See Sun, Xudong
Yu, Jianding See Paradis, Paul-François
Yu, Jinnan See Yang, Wen
Yu, Peng See Deng, Cheng-Ji
Yu, Ting See Gao, Xingsen
Zaharescu, Maria See Scarlat, Oana
Zawada, Larry P.; Hay, Randall S.; Lee, Shin S.; and Staehler, James
Characterization and High-Temperature Mechanical Behavior of an Oxide/Oxide Composite. (6) 981
Zawada, Larry P.; Staehler, James; and Steel, Steve
Consequence of Intermittent Exposure to Moisture and Salt Fog on the High-Temperature Fatigue Durability of Several Ceramic-Matrix Composites. (8) 1282
Zenotchkine, M.; Shuba, R.; and Chen, I-Wei
Effect of Seeding on the Microstructure and Mechanical Properties of α-SiAlON: III. Comparison of Modifying Cations. (7) 1168
Zhan, Guo-Dong; Kuntz, Joshua; Wan, Julin; Garay, Javier; and Mukherjee, Amiya K.
A Novel Processing Route to Develop a Dense Nanocrystalline Alumina Matrix (<100 nm) Nanocomposite Material. (1) 200
Zhan, Guo-Dong See Gu, Hui
Zhang, Fang See Sun, Xudong
Zhang, Guo-Jun See Yang, Jian-Feng
Zhang, Mei; Salvado, I. M. Miranda; and Vilarinho, Paula M.
Synthesis and Characterization of Lead Zirconate Titanate Fibers Prepared by the Sol–Gel Method: The Role of the Acid. (5) 775
Zhang, Ning Xin See Cao, Jiang Li
Zhang, Qinghong See Sun, Jing
Zhang, R. See Bi, Zhaoxia X.
Zhang, Rui; Gao, Lian; and Guo, Jingkun
Thermodynamic Behavior of Copper-Coated Silicon Carbide Particles during Conventional Heating and Spark Plasma Sintering. (8) 1446
Zhang, Shaowei See Hashimoto, Shinobu
Zhang, Wei; Huang, Zhao-Long; Liao, Su-San; and Cui, Fu-Zhai
Nucleation Sites of Calcium Phosphate Crystals during Collagen Mineralization. (6) 1052
Zhang, Xiao Feng; Lee, Gun Y.; Chen, Da; Ritchie, R. O.; and Jonghe, Lutgard C. De
Abrasive Wear Behavior of Heat-Treated ABC-Silicon Carbide. (8) 1370
Zhang, Yahong and Navrotsky, Alexandra
Thermochemistry of Glasses in the Y_2O_3–Al_2O_3–SiO_2 System. (10) 1727
Zhang, Zaoli See De Souza, Roger A.
Zhang, Zhe-Feng; Sun, Zheng Ming; Hashimoto, Hitoshi; and Abe, Toshihiko
Fabrication and Microstructure Characterization of Ti_3SiC_2 Synthesized from Ti/Si/2TiC Powders Using the Pulse Discharge Sintering (PDS) Technique. (3) 431
Zheng, Jian G. See Fu, L.
Zheng, Y. D. See Bi, Zhaoxia X.
Zheng, Yan-Qing See Chen, Zhi-Zhan
Zhou, Ji See Li, Bo
Zhou, Longjie See Ma, Jingtao
Zhou, Min See Keller, Andrew R.
Zhou, Xinzhang; Shukla, Vijay; Cannon, W. Roger; and Kear, Bernard H.
Metastable Phase Formation in Plasma-Sprayed ZrO_2 (Y_2O_3)–Al_2O_3. (8) 1415
Zhou, You; Hirao, Kiyoshi; Yamauchi, Yukihiko; and Kanzaki, Shuzo
Tribological Properties of Silicon Carbide and Silicon Carbide–Graphite Composite Ceramics in Sliding Contact. (6) 991
Zhou, You See Deng, Zhen-Yan
Zhou, Yu See Ye, Feng
Zhu, Dongming See Lee, Kang N.
Zhu, Peixin; Masuda, Yoshitake; Yonezawa, Tetsu; and Koumoto, Kunihito
Investigation of Apatite Deposition onto Charged Surfaces in Aqueous Solutions Using a Quartz-Crystal Microbalance. (5) 782
Zhu, Shijie See Kim, Yeongseok
Zhu, Xinwen; Tang, Fengqiu; Suzuki, Tohru S.; and Sakka, Yoshio
Role of the Initial Degree of Ionization of Polyethylenimine in the Dispersion of Silicon Carbide Nanoparticles. (1) 189
Zhuang, Ji-Yong See Chen, Zhi-Zhan
Ziegler, A.; Kisielowski, C.; Hoffmann, M. J.; and Ritchie, R. O.
Atomic Resolution Transmission Electron Microscopy of the Intergranular Structure of a Y_2O_3-Containing Silicon Nitride Ceramic. (10) 1777
Zimmermann, André See Cai, Ye
Žnidaršič, Andrej See Drofenik, Miha
Zuo, Ruzhong; Aulbach, Emil; Bordia, Rajendra K.; and Rödel, Jürgen
Critical Evaluation of Hot Forging Experiments: Case Study in Alumina. (7) 1099

Subject Index

Numbers in parentheses refer to month of issue, following numbers are page numbers.

abrasion/abrasives
Scratch Damage in Ceramics: Role of Microstructure. (1) 141
additives
Additive Effects on Si_3N_4 Oxidation/Volatilization in Water Vapor. (8) 1262
Additive-Enhanced Redispersion of Ceramic Agglomerates. (9) 1487
Effect of Alumina Addition on the Distribution of Intergranular-Liquid Phase during Sintering of 15-mol%-Calcia-Stabilized Zirconia. (9) 1518
Effect of the Amount of Additives and Post-Heat Treatment on the Microstructure and Mechanical Properties of Yttrium–α-Sialon Ceramics. (12) 2136
High-Temperature Strength of Sinter-Forged Silicon Nitride with Lutetia Additive. (8) 1430
Nonequiaxial Grain Growth and Polytype Transformation of Sintered α-Silicon Carbide and β-Silicon Carbide. (12) 2222
Novel Way to Synthesize Nanocrystalline Aluminum Nitride from Coarse Aluminum Powder. (7) 1214
adhesives/adhesion
Adhesion of Copper and Alumina from First Principles. (4) 696
Exploiting Covalency to Enhance Metal–Oxide and Oxide–Oxide Adhesion at Heterogeneous Interfaces. (3) 373
adsorption/adsorbents
Influence of pH and Ionic Impurities on the Adsorption of Poly(acrylic) Dispersant onto a Zinc Oxide Surface. (12) 2001
Photocatalytic Activity of Monodispersed Spherical TiO_2 Particles with Different Crystallization Routes. (7) 1138
agglomeration/agglomerates
Additive-Enhanced Redispersion of Ceramic Agglomerates. (9) 1487
aggregates
Metastable Phase Formation in Plasma-Sprayed ZrO_2 (Y_2O_3)–Al_2O_3. (8) 1415
aging
Changes in Aging Behavior and Defect Structure of Yttria-Fully-Stabilized ZrO_2 with Sc_2O_3 Doping. (12) 2093
alkalis/alkaline earths
Factors Affecting the Preparation of $Sr_2Fe_{2-x}Mo_xO_6$. (9) 1453
Hydration Products and Reactivity of Blast-Furnace Slag Activated by Various Alkalis. (12) 2148
Low-Thermal-Expansion Properties of Sodium- and Lithium-Substituted Cubic Cesium Leucite Compounds. (8) 1360
Thermodynamic Assessment of the Miscibility Gaps and the Metastable Liquidi in the B_2O_3–RO Systems (R = Mg, Ca, Sr, and Ba). (11) 1947
alkoxide
Amorphous Silicon Carbonitride Fibers Drawn from Alkoxide Modified Ceraset™. (8) 1443
Stabilization of Poly(vinylpyrrolidone)-containing Alkoxide Solutions for Thick Sol–Gel Barium Titanate Films. (1) 33
alumina
A Novel Processing Route to Develop a Dense Nanocrystalline Alumina Matrix (<100 nm) Nanocomposite Material. (1) 200
Abnormal Grain Growth in Alumina: Synergistic Effects of Yttria and Silica. (4) 650
Abnormal Grain Growth of Alumina: CaO Effect. (4) 644
Alternative Explanation for the Role of Magnesia in the Sintering of Alumina Containing Small Amounts of a Liquid Phase. (4) 634
Alumina Grown during Deposition of Thermal Barrier Coatings on NiCrAlY. (4) 676
Atomic Structures and Energies of Σ7 Symmetrical Tilt Grain Boundaries in Alumina Bicrystals. (4) 574
Characteristics of Liquid Penetration into Undoped and Magnesia-Doped Alumina. (12) 2206
Chemically Bonded Phosphate Ceramics: II. Warm-Temperature Process for Alumina Ceramics. (11) 1845
Combined Spectroscopic and Thermodynamic Investigation of Nextel-720 Fiber/Alumina Ceramic-Matrix Composite in Air and Water Vapor at 1100°C. (9) 1628
Crack-Healing Behavior of Al_2O_3 Toughened by SiC Whiskers. (12) 2143
Critical Evaluation of Hot Forging Experiments: Case Study in Alumina. (7) 1099
Determination of Pipe Diffusion Coefficients in Undoped and Magnesia-Doped Sapphire (α-Al_2O_3): A Study Based on Annihilation of Dislocation Dipoles. (4) 560
Dislocation Structures of Low-Angle and Near-Σ3 Grain Boundaries in Alumina Bicrystals. (4) 595
Effect of Alumina Addition on the Distribution of Intergranular-Liquid Phase during Sintering of 15-mol%-Calcia-Stabilized Zirconia. (9) 1518
Effect of Magnesium Oxide Addition on Surface Roughening of Alumina Grains in Anorthite Liquid. (4) 630
Effect of Oligosaccharide Alcohol Addition to Alumina Slurry and Translucent Alumina Produced by Slip Casting. (5) 755
Effect of the Liquid-Forming Additive Content on the Kinetics of Abnormal Grain Growth in Alumina. (8) 1421
Effect of Titania and Lithia Doping on the Boundary Migration of Alumina under an Electric Field. (2) 347
Effect of Titania and Lithia Doping on the Boundary Migration of Alumina under an Electric Field. (4) 640
Effect of Yttrium and Erbium Ions on Epitaxial Phase Transformations in Alumina. (4) 541
Elimination of Surface Spallation of Alumina Green Bodies Prepared by Acrylamide-Based Gelcasting via Poly(vinylpyrrolidone). (2) 266
Evidence of Bilevel Solubility in the Bimodal Microstructure of TiO_2-Doped Alumina. (11) 1953
Evolution of Average Microstructural Properties in the Final Stage Sintering of Alumina. (2) 252
Experiment and Theory of Diffusion in Alumina. (4) 554
Fabrication of Macroporous Alumina with Tailored Porosity. (12) 2050
Fabrication of Single-Crystal α-Al_2O_3 Nanorods by Displacement Reactions. (8) 1385
Failure Prediction Maps for a Model Al_2O_3/c-ZrO_2/Al_2O_3/Al_2O_3 Brittle Polycrystalline Trilayer Composite. (1) 121
Flaw Size Distribution in High-Quality Alumina. (6) 1019
Hydrothermal Synthesis of Submicrometer α-Alumina from Seeded Tetraethylammonium Hydroxide-Peptized Aluminum Hydroxide. (12) 2055
Impurity Effects on Alumina Scale Growth. (4) 660
Increase in Phase Transition Temperature of Activated Alumina with Nano-Zirconia Synthesized by Pulsed Wire Discharge. (9) 1522
Influence of a Dispersion of Aluminum Titanate Particles of Controlled Size on the Thermal Shock Resistance of Alumina. (5) 846
Influence of Moisture on Ultra-High-Temperature Tensile Creep Behavior of *in Situ* Single-Crystal Oxide Ceramic Alumina/Yttrium Aluminum Garnet Eutectic Composite. (6) 951
Initial Stages of Growth of Alumina on NiAl(001) at 1025 K. (4) 669
Kinetic Study of Amorphous Yttria–Alumina Fibers Using Differential Thermal Analysis. (1) 43
Method for Production of α-Alumina Whiskers via Vapor–Liquid–Solid Deposition. (10) 1683
Microstructural Evolution of Calcium-Doped α-Alumina. (4) 623
Optimization of Reactive-Element Additions to Improve Oxidation Performance of Alumina-Forming Alloys. (4) 686
Performance of Alumina Membranes from New Nanosynthesis in Ultrafiltration and Nanofiltration. (2) 241
Preparation and Characterization of Macroporous α-Alumina. (9) 1481
Processing of High-Density Submicrometer Al_2O_3 for New Applications. (4) 546
Quaternary System Al_2O_3–CaO–MgO–SiO_2: I. Study of the Crystallization Volume of Al_2O_3. (12) 2195
Roles of Alumina in Zirconia for Functional Applications. (11) 1867
Singular Grain Boundaries in Alumina and Their Roughening Transition. (4) 603
Slip and Twinning in Polycrystalline Alumina (α-Al_2O_3) Deformed under Hydrostatic Pressure between 600° and 1000°C. (4) 566
Sol–Gel Alumina Coating for Improved Cyclic Oxidation Resistance of Silicon Nitride. (9) 1622
Sol–Gel Synthesis of λ-$Na_2O{\cdot}xAl_2O_3$ Films. (11) 1965
Structure and Chemistry of Symmetrical Tilt Grain Boundaries in α-Al_2O_3: I. Bicrystals with "Clean" Interface. (4) 581
Structure and Chemistry of Symmetrical Tilt Grain Boundaries in α-Al_2O_3: II. Bicrystals with Y at the Interface. (4) 590
Synthesis of Magnesium Aluminate Spinel Platelets from α-Alumina Platelet and Magnesium Sulfate Precursors. (11) 1959
Synthesis of Nanocrystalline α-Al_2O_3 Powders from Nanometric Ammonium Aluminum Carbonate Hydroxide. (8) 1321
Synthesis of Zinc Aluminate Spinel Film through the Solid-Phase Reaction between Zinc Oxide Film and α-Alumina Substrate. (12) 2059
Thermal Resistance of Grain Boundaries in Alumina Ceramics and Refractories. (1) 105
Transparent Alumina: A Light-Scattering Model. (3) 480
Vaporization Processes and Pressure Buildup during Dewatering of Dense Refractory Castables. (9) 1500
aluminates
Hydrothermal Synthesis of Nanosized $CoAl_2O_4$ on $ZnAl_2O_4$ Seed Crystallites. (6) 1058
Substitution of Sodium and Silicon in Tricalcium Aluminate. (1) 112
aluminosilicates
Aluminum Silicate Films Obtained by Low-Pressure Metal-Organic Chemical Vapor Deposition. (6) 969
Characterization and High-Temperature Mechanical Behavior of an Oxide/Oxide Composite. (6) 981
Formation of a Highly Protective Amorphous Aluminum Silicate Layer on Steel during Granite–Dry Steam Interaction. (6) 1061
Fracture-Mode Change in Alumina-Silicon Carbide Composites Doped with Rare-Earth Impurities. (10) 1789
Internal Reduction of an Iron-Doped Magnesium Aluminosilicate Melt. (3) 487
Microwave Sintering of Alumina at 2.45 GHz. (8) 1307
Properties of Nitrogen-Containing Yttria–Alumina–Silica Melts and Glasses. (4) 711
Thermochemistry of Glasses in the Y_2O_3–Al_2O_3–SiO_2 System. (10) 1727
aluminum
A New Aluminum Coordination Site in Si-C-Al-N-(O) Ceramics. (12) 2212
Dynamics of Formation of Self-Organized Mesoporous AlO(OH)·αH_2O Structure in Al-Metal Surface Hydrolysis in Humid Air. (12) 2037
Nanostructures at Electrostatic Bond Interfaces. (10) 1773
Synthesis of Al_4SiC_4. (6) 1028
aluminum nitride
A New Aluminum Coordination Site in Si-C-Al-N-(O) Ceramics. (12) 2212
High-Temperature Neutron Diffraction of the AlN–Al_2O_3–Y_2O_3 System. (4) 717
Nanocrystalline Aluminum Nitride: I. Vapor-Phase Synthesis in a Forced-Flow Reactor. (7) 1114
Nanocrystalline Aluminum Nitride: II. Sintering and Properties. (7) 1121
Nanosize Powders of Aluminum Nitride Synthesized by Pulsed Wire Discharge. (3) 420
Novel Way to Synthesize Nanocrystalline Aluminum Nitride from Coarse Aluminum Powder. (7) 1214
Synthesis of Aluminum Nitride Nanopowder by Gas-Reduction–Nitridation Method. (6) 1046
aluminum oxide
Effect of Microstructure on Dynamic Failure Resistance of Titanium Diboride/Alumina Ceramics. (3) 449
Gas Pressure Sintering of Silicon Nitride Powder Coated with Al_2O_3 and TiO_2. (2) 212
Green Fabrication of Porous Ceramics Using an Aqueous Electrophoretic Deposition Process. (7) 1230
High-Temperature Neutron Diffraction of the AlN–Al_2O_3–Y_2O_3 System. (4) 717
Microwave Plasma Synthesis of Nanostructured γ-Al_2O_3 Powders. (9) 1635
Precipitation of MgO·nAl_2O_3 in Mg-Doped α-Al_2O_3 under Electron Irradiation. (1) 161
amorphous
Amorphous Silicon Carbonitride Fibers Drawn from Alkoxide Modified Ceraset™. (8) 1443
Field Emission Characteristics of Amorphous Diamond. (9) 1513
Formation of a Highly Protective Amorphous Aluminum Silicate Layer on Steel during Granite–Dry Steam Interaction. (6) 1061

Molecular Dynamics Simulations of Amorphous Si–C–N Ceramics: Composition Dependence of the Atomic Structure. (8) 1409
Two-Layer Crystallization of Amorphous $YMnO_3$ Thin Films on Si (100) Substrates. (1) 149

anatase
Anatase Sol Prepared from Peroxotitanium Complex Aqueous Solution Containing Niobium or Vanadium. (9) 1605

anisotropy
Surface Energy Anisotropy of $SrTiO_3$ at 1400°C in Air. (11) 1933

annealing
Abrasive Wear Behavior of Heat-Treated ABC-Silicon Carbide. (8) 1370
Transmission Electron Microscopy Investigation of $Pt/Ba_{0.7}Sr_{0.3}TiO_3/Pt$ Capacitors with Different Annealing Processes. (7) 1190

anorthite
Crystallographic-Orientation-Dependent Dissolution Behavior of Sapphire in Anorthite Liquid Containing Chromia. (6) 1014
Effect of Magnesium Oxide Addition on Surface Roughening of Alumina Grains in Anorthite Liquid. (4) 630

antimony/antimony compounds
Grain Growth Control in Sb_2O_3-Doped Zinc Oxide. (8) 1379

apatite
Electronic Structure and Bonding in Crystalline $Y_{10}[SiO_4]_6N_2$. (8) 1424
Investigation of Apatite Deposition onto Charged Surfaces in Aqueous Solutions Using a Quartz-Crystal Microbalance. (5) 782
Pu, U, and Hf Incorporation in Gd Silicate Apatite. (7) 1223

Auger electron spectroscopy
Auger Electron Spectroscopy Analysis of Cross-Section Surface of Oxidized Titanium Carbide Single Crystal. (12) 2116

barium
Flextensional Barium Strontium Titanate Actuators. (6) 934
Upper Temperature Limit of Environmental Barrier Coatings Based on Mullite and BSAS. (8) 1299

barium carbonate
Barium Carbonate Phase on the Surfaces of Barium Titanate Particles and *in Situ* Transmission Electron Microscopy Observation of Its Decomposition. (4) 741
Influence of Barium Dissolution on the Electrokinetic Properties of Colloidal $BaTiO_3$ in an Aqueous Medium. (10) 1662

barium niobates
Atmospheric Dependence on Dielectric Loss of $\frac{1}{5}Ba_5Nb_4O_{15}$-$\frac{1}{6}BaNb_2O_6$ Ceramics. (5) 795

barium oxide
$(Bi_{1/2}Na_{1/2})TiO_3$–$Ba(Cu_{1/3}W_{1/2})O_3$ Lead-Free Piezoelectric Ceramics. (10) 1809

barium titanate
{111} Twin Formation and Abnormal Grain Growth in Barium Strontium Titanate. (1) 155
A New Glycothermal Process for Barium Titanate Nanoparticle Synthesis. (10) 1793
Barium Carbonate Phase on the Surfaces of Barium Titanate Particles and *in Situ* Transmission Electron Microscopy Observation of Its Decomposition. (4) 741
Effect of P_{O_2} on Bulk and Grain Boundary Resistance of n-Type $BaTiO_3$ at Cryogenic Temperatures. (9) 1554
Effect of Silver Addition on the Dielectric Properties of Barium Titanate-Based X7R Ceramics. (6) 1022
Effect of the Liquid-Phase Characteristic on the Microstructures and Dielectric Properties of Donor- (Niobium) and Acceptor- (Magnesium) Doped Barium Titanate. (1) 88
Fluorine as a Donor Dopant in Barium Titanate Ceramics. (3) 495
Grain-Growth Behavior during Stepwise Sintering of Barium Titanate in Hydrogen Gas and Air. (12) 2228
Hydrothermal Synthesis of Thin Films of Barium Titanate Ceramic Nano-tubes at 200°C. (12) 2215
Influence of [Ba + Ca]/[Ti + Zr] Ratio on the Interfacial Property of (Ba,Ca)(Ti,Zr)O_3 (BCTZ) Powders in an Aqueous Medium. (6) 1034
Influence of Barium Dissolution on the Electrokinetic Properties of Colloidal $BaTiO_3$ in an Aqueous Medium. (10) 1662
Kinetic Process of Reoxidation of Base Metal Technology $BaTiO_3$-Based Multilayer Capacitors. (11) 1879
Microwave Dielectric Properties of Gallium-Doped Hexagonal Barium Titanate Ceramics. (3) 511
Preparation of $0.95Bi_{1/2}Na_{1/2}TiO_3$-$0.05BaTiO_3$ Ceramics by an Aqueous Citrate-Gel Route. (1) 192
Preparation of Highly Dispersed Ultrafine Barium Titanate Powder by Using Microbial-Derived Surfactant. (12) 2011
Stabilization of Poly(vinylpyrrolidone)-containing Alkoxide Solutions for Thick Sol–Gel Barium Titanate Films. (1) 33
Synthesis of Bismuth Sodium Titanate Nanosized Powders by Solution/Sol–Gel Process. (9) 1464
Tetragonal Nanocrystalline Barium Titanate Powder: Preparation, Characterization, and Dielectric Properties. (1) 203
Water-Induced Degradation of Barium Titanate Ceramics Studied by Electrochemical Hydrogen Charging. (4) 735

bending
Fracture Toughness of a Toughened Silicon Nitride by ASTM C 1421. (6) 1043

binders/binding
A Simple Direct Casting Route to Ceramic Foams. (10) 1645
Determination of the Minimum Time for Binder Removal and Optimum Geometry for Three-Dimensional Porous Green Bodies. (12) 2087

bioceramics
From CT Scan to Ceramic Bone Graft. (7) 1076
Joining of Calcium Phosphate Invert Glass-Ceramics on a β-Type Titanium Alloy. (6) 1031
Novel Method to Manufacture Porous Hydroxyapatite by Dual-Phase Mixing. (1) 65
Physicochemical Degradation of Titania-Stabilized Soluble Phosphate Glasses for Medical Applications. (8) 1345
Pressureless Sintering and Mechanical and Biological Properties of Fluor-hydroxyapatite Composites with Zirconia. (12) 2019
Sintered Hydroxyapatite Latticework for Bone Substitute. (3) 517
Synthesis of Hydroxyapatite Nanopowders via Sucrose-Templated Sol–Gel Method. (6) 1055
Synthesis of Nanosized and Microporous Precipitated Hydroxyapatite in Synthetic Polymers and Biopolymers. (2) 357

bismuth oxide
Dielectric Properties of the Fluorite-like Bi_2O_3–Nb_2O_5 Solid Solution and the Tetragonal Bi_3NbO_7. (6) 939

bismuth titanates
$(Bi_{1/2}Na_{1/2})TiO_3$–$Ba(Cu_{1/3}W_{1/2})O_3$ Lead-Free Piezoelectric Ceramics. (10) 1809
Hydrothermal Synthesis of Bismuth Titanate Powders. (10) 1815
Microstructure Development in Reactive-Templated Grain Growth of $Bi_{1/2}Na_{1/2}TiO_3$-Based Ceramics: Template and Formulation Effects. (5) 769
Preparation of $0.95Bi_{1/2}Na_{1/2}TiO_3$-$0.05BaTiO_3$ Ceramics by an Aqueous Citrate-Gel Route. (1) 192
Properties of Aqueous Bismuth Titanate Suspensions Stabilized by Acrylic Acid/Acrylic Ester Copolymer. (12) 2203
Reactive-Templated Grain Growth of $Bi_{1/2}(Na,K)_{1/2}TiO_3$: Effects of Formulation on Texture Development. (7) 1132

boron carbide
Pressureless Sintering of Boron Carbide. (9) 1468

boron nitride
Carbothermal Synthesis of Boron Nitride Coatings on Silicon Carbide. (11) 1830
Preparation of Nanostructured Hexagonal Boron Nitride Powder. (11) 1982

borosilicate glass
Corrosion of Borosilicate Sealing Glasses for Molten Carbonate Fuel Cells. (11) 1918
Thermal, Dielectric, and Optical Properties of Neodymium Borosilicate Glasses for Thick Films. (7) 1202

brittle materials
Nanoindentation Method for Measuring Residual Stress in Brittle Materials. (5) 811

bulk modulus
Electronic Structure and Bulk Properties of β-SiAlONs. (7) 1162

calciners/calcination
Single-Calcination Synthesis of Pyrochlore-Free $0.9Pb(Mg_{1/3}Nb_{2/3})O_3$–$0.1PbTiO_3$ and $Pb(Mg_{1/3}Nb_{2/3})O_3$ Ceramics Using a Coating Method. (2) 217

calcium
Microstructural Evolution of Calcium-Doped α-Alumina. (4) 623

calcium aluminate
Contactless Density Measurement of Liquid Nd-Doped 50%CaO–50%Al_2O_3. (12) 2234
Quaternary System Al_2O_3–CaO–MgO–SiO_2: I. Study of the Crystallization Volume of Al_2O_3. (12) 2195

calcium hydroxide
X-ray Diffraction Investigations of Microstructure of Calcium Hydroxide Crystallites in the Interfacial Transition Zone of Concrete. (12) 2162

calcium oxide
Abnormal Grain Growth of Alumina: CaO Effect. (4) 644
Effect of the Liquid-Forming Additive Content on the Kinetics of Abnormal Grain Growth in Alumina. (8) 1421
Measurement of Small Concentrations of Manganese in Lime (CaO) Using Electron Spin Resonance. (1) 195

calcium phosphate
Joining of Calcium Phosphate Invert Glass-Ceramics on a β-Type Titanium Alloy. (6) 1031
Macrochanneled Tetragonal Zirconia Polycrystals Coated by a Calcium Phosphate Layer. (12) 2027
Nucleation Sites of Calcium Phosphate Crystals during Collagen Mineralization. (6) 1052

calcium silicate
Molecular Dynamics Simulations of Calcium Silicate Intergranular Films between Silicon Nitride Crystals. (10) 1741
Structure of Calcium Silicate Hydrates Formed in Alkaline-Activated Slag: Influence of the Type of Alkaline Activator. (8) 1389

calcium silicate hydrate
Hydration Products and Reactivity of Blast-Furnace Slag Activated by Various Alkalis. (12) 2148

calculations
First-Principles Calculations of Microdomain Models for β-Sialon Si_5AlON_7. (11) 1956

carbides
Fabrication and Microstructure Characterization of Ti_3SiC_2 Synthesized from Ti/Si/2TiC Powders Using the Pulse Discharge Sintering (PDS) Technique. (3) 431
Fabrication of New Cemented Carbide Containing Diamond Coated with Nanometer-Sized SiC Particles. (1) 73

carbon
Effect of Carbon and Silicon Carbide/Carbon Interlayers on the Mechanical Behavior of Tyranno-SA-Fiber-Reinforced Silicon Carbide-Matrix Composites. (5) 851
Field Emission Characteristics of Amorphous Diamond. (9) 1513
Influence of Carbon on SO_x Emissions from Glass Processing. (12) 2044

cation
Influence of Cation Order on the Dielectric Properties of $Pb(Mg_{1/3}Nb_{2/3})O_3$–$Pb(Sc_{1/2}Nb_{1/2})O_3$ (PMN-PSN) Relaxor Ferroelectrics. (11) 1861

ceramic matrix composites
Characterization and High-Temperature Mechanical Behavior of an Oxide/Oxide Composite. (6) 981
Combined Spectroscopic and Thermodynamic Investigation of Nextel-720 Fiber/Alumina Ceramic-Matrix Composite in Air and Water Vapor at 1100°C. (9) 1628
Consequence of Intermittent Exposure to Moisture and Salt Fog on the High-Temperature Fatigue Durability of Several Ceramic-Matrix Composites. (8) 1282
Thermal Response and Oxidation of Tyranno™-Fiber-Reinforced Si-Ti-C-O Matrix Composites for a Thermal Protection System in High-Enthalpy Dissociated Air. (5) 830

ceramic products
A Simple Direct Casting Route to Ceramic Foams. (10) 1645

cerium/cerium compounds
Blocking Grain Boundaries in Yttria-Doped and Undoped Ceria Ceramics of High Purity. (1) 77
CeO_2−CoO Phase Diagram. (9) 1567
Interface Structure of an Epitaxial Cubic Ceria Film on Cubic Zirconia. (2) 363
Low-Thermal-Expansion Properties of Sodium- and Lithium-Substituted Cubic Cesium Leucite Compounds. (8) 1360
Optimization of Praseodymium-Doped Cerium Pigment Synthesis Temperature. (3) 425
Oxygen Storage Capacity, Specific Surface Area, and Pore-Size Distribution of Ceria–Zirconia Solid Solutions Directly Formed by Thermal Hydrolysis. (12) 2209

chemical durability
Physicochemical Degradation of Titania-Stabilized Soluble Phosphate Glasses for Medical Applications. (8) 1345

chemical vapor deposition
Aluminum Silicate Films Obtained by Low-Pressure Metal-Organic Chemical Vapor Deposition. (6) 969
Surface Pretreatments of Silicon Nitride for CVD Diamond Deposition. (5) 749
Thermal Stability of a Chemically Vapor Deposited Multilayer Coating Containing Amorphous Silica and Rutile Titania on Hi-Nicalon Fiber. (10) 1797

chromium oxide
Crystallographic-Orientation-Dependent Dissolution Behavior of Sapphire in Anorthite Liquid Containing Chromia. (6) 1014

coarsening
Evolution of Average Microstructural Properties in the Final Stage Sintering of Alumina. (2) 252

coatings
Carbothermal Synthesis of Boron Nitride Coatings on Silicon Carbide. (11) 1830
Composition and Crystallization of Hydroxyapatite Coating Layer Formed by Electron Beam Deposition. (1) 186
Damage Behavior in Ceramic Plasma-Coated and Uncoated Glass with Steel-Ball Impact. (7) 1220
Effectiveness of Monazite Coatings in Oxide/Oxide Composites after Long-Term Exposure at High Temperature. (2) 325
Evolution of Texture in Rhabdophane-Derived Monazite Coatings. (10) 1767
Formation of an Environmental Barrier Coating Using DC-RF Hybrid Plasma. (7) 1068

Macrochanneled Tetragonal Zirconia Polycrystals Coated by a Calcium Phosphate Layer. (12) 2027
Measurement of Fracture Toughness of Plasma-Sprayed Al_2O_3 Coatings Using a Tapered Double Cantilever Beam Method. (8) 1437
Microstructural Evolution and Microhardness in Zirconia-Based EB-PVD Thermal Barrier Coatings. (6) 959
Single-Calcination Synthesis of Pyrochlore-Free $0.9Pb(Mg_{1/3}Nb_{2/3})O_3$–$0.1PbTiO_3$ and $Pb(Mg_{1/3}Nb_{2/3})O_3$ Ceramics Using a Coating Method. (2) 217
Thermal Stability of a Chemically Vapor Deposited Multilayer Coating Containing Amorphous Silica and Rutile Titania on Hi-Nicalon Fiber. (10) 1797
Upper Temperature Limit of Environmental Barrier Coatings Based on Mullite and BSAS. (8) 1299

cobalt/cobalt compounds
CeO_2–CoO Phase Diagram. (9) 1567

colloids
Influence of [Ba + Ca]/[Ti + Zr] Ratio on the Interfacial Property of $(Ba,Ca)(Ti,Zr)O_3$ (BCTZ) Powders in an Aqueous Medium. (6) 1034

combustion synthesis
Aqueous Combustion Synthesis of Strontium-Doped Lanthanum Chromite Ceramics. (7) 1149
Effect of Ni and Co Additives on Phase Decomposition in TiB_2–WB_2 Solid Solutions Formed by Induction Field Activated Combustion Synthesis. (2) 354
Microwave-Assisted Combustion Synthesis of Tantalum Nitride in a Fluidized Bed. (2) 222
Morphology of Oxide Particles Made by the Emulsion Combustion Method. (6) 898
Simultaneous Synthesis and Densification of Titanium Oxycarbide, Ti(C,O), through Gas–Solid Combustion. (12) 2067
Zeolite Synthesized by Alkaline Hydrothermal Treatment of Bottom Ash from Combustion of Municipal Solid Wastes. (9) 1527

composites
Application of a Tough Surface Layer to a Fiber-Bonded Composite. (9) 1612
Effect of Microstructure on Dynamic Failure Resistance of Titanium Diboride/Alumina Ceramics. (3) 449
Effectiveness of Monazite Coatings in Oxide/Oxide Composites after Long-Term Exposure at High Temperature. (2) 325
Fabrication of Silicon Carbide–Mullite Composite by Melt Infiltration. (1) 39
High-Temperature Resistant Composites in the AlN–SiC–$MoSi_2$ System. (10) 1720
Improvement in the Oxidation Resistance of Oxide-Matrix Silicon Carbide-Particulate Composites by Mullite Infiltration. (10) 1806
Influence of Interfacial Roughness on Fiber Sliding in Oxide Composites with La-Monazite Interphases. (2) 305
Influence of Residual Stresses on the Wear Behavior of Alumina/Alumina–Zirconia Laminated Composites. (9) 1547
Mullite–Aluminum Phosphate Laminated Composite Fabricated by Tape Casting. (11) 1962
Preparation of Polymethylmethacrylate-Reinforced Functionally Graded Hydroxyapatite Composites. (8) 1440
Preparation of SiC/SiC Composites by Hot Pressing, Using Tyranno-SA Fiber as Reinforcement. (1) 26
Processing and Tribological Properties of Si_3N_4/Carbon Short Fiber Composites. (7) 1081
Tensile Strength and Deformation of a Two-Dimensional Carbon–Carbon Composite at Elevated Temperatures. (12) 2129
Thermodynamic Behavior of Copper-Coated Silicon Carbide Particles during Conventional Heating and Spark Plasma Sintering. (8) 1446
Tribological Properties of Silicon Carbide and Silicon Carbide–Graphite Composite Ceramics in Sliding Contact. (6) 991
Undercooled Melt Formation and Shaping of Alumina–Yttrium Aluminum Garnet Eutectic Ceramics. (10) 1818

concrete
Detection of Drying-Induced Microcracking in Cementitious Materials with Space-Resolved ^1H Nuclear Magnetic Resonance Relaxometry. (5) 800
X-ray Diffraction Investigations of Microstructure of Calcium Hydroxide Crystallites in the Interfacial Transition Zone of Concrete. (12) 2162

conductivity
Blocking Grain Boundaries in Yttria-Doped and Undoped Ceria Ceramics of High Purity. (1) 77
Microthermal Analysis of Heat Conduction in Silicon Nitrides. (8) 1365
Novel Fast Lithium Ion Conduction in Garnet-Type $Li_5La_3M_2O_{12}$ (M = Nb, Ta). (3) 437
Reel-to-Reel Continuous Chemical Solution Deposition of Epitaxial Gd_2O_3 Buffer Layers on Biaxially Textured Metal Tapes for the Fabrication of $YBa_2Cu_3O_{7-\delta}$ Coated Conductors. (2) 257

copper/copper compounds
Adhesion of Copper and Alumina from First Principles. (4) 696
Electroless Copper Coating of Zirconia Utilizing Palladium Catalyst. (2) 279
Formation of a Highly Protective Amorphous Aluminum Silicate Layer on Steel during Granite–Dry Steam Interaction. (6) 1061
Thermodynamic Behavior of Copper-Coated Silicon Carbide Particles during Conventional Heating and Spark Plasma Sintering. (8) 1446

corrosion/corrosion resistance
Corrosion of Borosilicate Sealing Glasses for Molten Carbonate Fuel Cells. (11) 1918
Influence of the Manufacturing Process on Corrosion Behavior of Soda-Lime-Silicate Glassware. (10) 1669

corundum
Transformation Mechanism of the Dehydration of Diaspore. (4) 534
Transparent Sintered Corundum with High Hardness and Strength. (1) 12

crack growth
Crack-Growth-Velocity-Dependent *R*-Curve Behavior in Lead Zirconate Titanate. (6) 1037
Slow-Crack-Growth Behavior of Zirconia-Toughened Alumina Ceramics Processed by Different Methods. (1) 115

crack tip
Crack-Tip Toughness of a Soft Lead Zirconate Titanate. (11) 1973

cracks/cracking
Crack-Healing Behavior of Al_2O_3 Toughened by SiC Whiskers. (12) 2143
Crack-Healing Behavior of Liquid-Phase-Sintered Silicon Carbide Ceramics. (3) 465
Cracking and the Indentation Size Effect for Knoop Hardness of Glasses. (3) 441
Damage Behavior in Ceramic Plasma-Coated and Uncoated Glass with Steel-Ball Impact. (7) 1220
Determining the Toughness of Ceramics from Vickers Indentations Using the Crack-Opening Displacements: An Experimental Study. (8) 1433
Fracture Toughness of a Toughened Silicon Nitride by ASTM C 1421. (6) 1043

creep
Bending Creep Test to Measure the Viscosity of Porous Materials during Sintering. (6) 877
Characterization of Precursor-Derived Silicon-Carbon-Nitrogen Ceramics after Creep Testing. (9) 1598
Influence of Moisture on Ultra-High-Temperature Tensile Creep Behavior of *in Situ* Single-Crystal Oxide Ceramic Alumina/Yttrium Aluminum Garnet Eutectic Composite. (6) 951
Microstructural Changes in Liquid-Phase-Sintered Silicon Carbide during Creep in an Oxidizing Environment. (3) 501

crystals/crystallization
Band Gap Modification of Diamond Photonic Crystals by Changing the Volume Fraction of the Dielectric Lattice. (10) 1691
Crystallization Measurements Using DTA Methods: Applications to Zerodur®. (9) 1540
Crystallographic-Orientation-Dependent Dissolution Behavior of Sapphire in Anorthite Liquid Containing Chromia. (6) 1014
Effect of the Processing Parameters on the Crystalline Features of the Solid Solution $Y(Co_xMn_{1-x})O_3$, $x = 0.6, 0.7$. (1) 54
Electronic Structure and Bonding in Crystalline $Y_{10}[SiO_4]_6N_2$. (8) 1424
Formation of β-Silicon Nitride Crystals from (Si,Al,Mg,Y)(O,N) Liquid: I, Phase, Composition, and Shape Evolutions. (9) 1578
Formation of β-Silicon Nitride Crystals from (Si,Al,Mg,Y)(O,N) Liquid: II, Population Dynamics and Coarsening Kinetics. (9) 1586
Fractional Crystallization of Liquid Coexisting with α-Ca_2SiO_4 Solid Solution in the CaO–SiO_2–Al_2O_3–Fe_2O_3 Pseudoquaternary System. (12) 2154
Grain Boundary Grooving Studies of Yttrium Aluminum Garnet (YAG) Bicrystals. (5) 870
Microwave Sintering of Alumina at 2.45 GHz. (8) 1307
Nucleation Sites of Calcium Phosphate Crystals during Collagen Mineralization. (6) 1052
Photocatalytic Activity of Monodispersed Spherical TiO_2 Particles with Different Crystallization Routes. (7) 1138
Synthesis of (Pb, La)(Zr, Ti)O_3 Inverse Opal Photonic Crystals. (5) 867
Two-Layer Crystallization of Amorphous $YMnO_3$ Thin Films on Si (100) Substrates. (1) 149

decomposition
Effect of Ni and Co Additives on Phase Decomposition in TiB_2–WB_2 Solid Solutions Formed by Induction Field Activated Combustion Synthesis. (2) 354
Optimization of a Composite Working Electrode for a New Family of Electrochemical Cell for NO Decomposition. (7) 1155
Sulfate Decomposition and Sodium Oxide Activity in Soda–Lime–Silica Glass Melts. (11) 1893

defects
Changes in Aging Behavior and Defect Structure of Yttria-Fully-Stabilized ZrO_2 with Sc_2O_3 Doping. (12) 2093
Defect Cluster Aggregation and Nonreducibility in Tin-Doped Indium Oxide. (10) 1707
Defect Structures of Tin-Doped Indium Oxide. (10) 1700

deformation
Determination of Pipe Diffusion Coefficients in Undoped and Magnesia-Doped Sapphire (α-Al_2O_3): A Study Based on Annihilation of Dislocation Dipoles. (4) 560
Electronic Structure and Bulk Properties of β-SiAlONs. (7) 1162
Elementary Mechanisms behind the High-Temperature Deformation Behavior of Lutetium-Doped Silicon Nitride. (3) 471
Indentation-Induced Amorphization in Mullite Single Crystals. (10) 1821
Multiaxial Deformation Behavior of PZT from Torsion Tests. (8) 1427
Slip and Twinning in Polycrystalline Alumina (α-Al_2O_3) Deformed under Hydrostatic Pressure between 600° and 1000°C. (4) 566

degradation
Martensitic Relief Observation by Atomic Force Microscopy in Yttria-Stabilized Zirconia. (12) 2225

densification
Bulk, Dense, Nanocrystalline Yttrium Aluminum Garnet by Consolidation of Amorphous Powders at Low Temperatures and High Pressures. (2) 247
Comment on "Densification Energy during Nanoindentation of Silica Glass". (12) 2237
Effect of Rigid Inclusions on the Densification and Constitutive Parameters of Liquid-Phase-Sintered $YBa_2Cu_3O_{6+\epsilon}$ Powder Compacts. (6) 883
Evolution of Average Microstructural Properties in the Final Stage Sintering of Alumina. (2) 252
Experimental Design Applied to Silicon Carbide Sintering. (7) 1208
Porous 2H-Silicon Carbide Ceramics Fabricated by Carbothermal Reaction between Silicon Nitride and Carbon. (6) 910
Reply to "Comment on 'Densification Energy during Nanoindentation of Silica Glass'". (12) 2239
Simultaneous Synthesis and Densification of Titanium Oxycarbide, Ti(C,O), through Gas–Solid Combustion. (12) 2067

deposition
Alumina Grown during Deposition of Thermal Barrier Coatings on NiCrAlY. (4) 676
Chemical Solution Deposition of Columnar-Grained Metallic Lanthanum Nitrate Thin Films. (10) 1786
Composition and Crystallization of Hydroxyapatite Coating Layer Formed by Electron Beam Deposition. (1) 186
Design and Construction of Insulation Configuration for Ultra High-Temperature Microwave Processing of Ceramics. (12) 2082
Green Fabrication of Porous Ceramics Using an Aqueous Electrophoretic Deposition Process. (7) 1230
Investigation of Apatite Deposition onto Charged Surfaces in Aqueous Solutions Using a Quartz-Crystal Microbalance. (5) 782
Lead Zirconate Titanate Thin Films by Aerosol Plasma Deposition: Microstructure Analysis. (12) 2167
Method for Production of α-Alumina Whiskers via Vapor–Liquid–Solid Deposition. (10) 1683
Nanocrystalline Tin Oxide Thin Films via Liquid Flow Deposition. (12) 2074
Reel-to-Reel Continuous Chemical Solution Deposition of Epitaxial Gd_2O_3 Buffer Layers on Biaxially Textured Metal Tapes for the Fabrication of $YBa_2Cu_3O_{7-\delta}$ Coated Conductors. (2) 257
Sintered Hydroxyapatite Latticework for Bone Substitute. (3) 517
Texture Development in Modified Lead Titanate Thin Films Obtained by Chemical Solution Deposition on Silicon-Based Substrates. (9) 1571

diamond
Band Gap Modification of Diamond Photonic Crystals by Changing the Volume Fraction of the Dielectric Lattice. (10) 1691
Fabrication of New Cemented Carbide Containing Diamond Coated with Nanometer-Sized SiC Particles. (1) 73
Field Emission Characteristics of Amorphous Diamond. (9) 1513
Surface Pretreatments of Silicon Nitride for CVD Diamond Deposition. (5) 749

diaspore
Transformation Mechanism of the Dehydration of Diaspore. (4) 534

dielectric materials/properties
Atmospheric Dependence on Dielectric Loss of $Ba_5Nb_4O_{15}$–$BaNb_2O_6$ Ceramics. (5) 795
Band Gap Modification of Diamond Photonic Crystals by Changing the Volume Fraction of the Dielectric Lattice. (10) 1691
Compositional Dependence of Microwave Dielectric Properties in $(1-x)(Na_{1/2}Nd_{1/2})TiO_3$–$xNd(Mg_{1/2}Ti_{1/2})O_3$ Ceramics. (7) 1159

Correlation between Arrangement of Dielectric Layers and Microwave Dielectric Properties of $Mg_{0.93}Ca_{0.07}TiO_3$–$(Ca_{0.3}Li_{0.14}Sm_{0.42})TiO_3$ Ceramics. (8) 1330
Dielectric Properties of the Fluorite-like Bi_2O_3–Nb_2O_5 Solid Solution and the Tetragonal Bi_3NbO_7. (6) 939
Effect of Porosity on the Electrical Properties of Polycrystalline Sodium Niobate, II: Dielectric Behavior. (12) 2103
Effect of Silver Addition on the Dielectric Properties of Barium Titanate-Based X7R Ceramics. (6) 1022
Effect of the Liquid-Phase Characteristic on the Microstructures and Dielectric Properties of Donor-(Niobium) and Acceptor- (Magnesium) Doped Barium Titanate. (1) 88
Grain-Growth Behavior during Stepwise Sintering of Barium Titanate in Hydrogen Gas and Air. (12) 2228
Influence of [Ba + Ca]/[Ti + Zr] Ratio on the Interfacial Property of (Ba,Ca)(Ti,Zr)O_3 (BCTZ) Powders in an Aqueous Medium. (6) 1034
Infrared Spectroscopic Investigations in Ordered Barium Magnesium Niobate Ceramics. (11) 1985
Microstructure Characterization of the $(1-x)La_{2/3}TiO_3$·$xLaAlO_3$ System. (8) 1395
Microwave Dielectric Properties of Gallium-Doped Hexagonal Barium Titanate Ceramics. (3) 511
Microwave Dielectric Properties of $RE_{1-x}RE'_xTiNbO_6$ [RE=Pr, Nd, Sm; RE'=Gd, Dy, Y] Ceramics. (10) 1695
Perovskite Formation and Dielectric Characteristics of $Pb(Zn_{1/3}Ta_{2/3})O_3$ with $PbTiO_3$ Substitution. (6) 929
Structure and Microwave Dielectric Properties of $(Zn_{1-x}Co_x)TiO_3$ Ceramics. (11) 1874
Tetragonal Nanocrystalline Barium Titanate Powder: Preparation, Characterization, and Dielectric Properties. (1) 203
Unique Dielectric Behavior of $0.6Pb(Ni_{1/2}W_{1/2})O_3$·$0.4PbTiO_3$ Derived from Mechanical Activation. (5) 791
Water-Induced Degradation of Barium Titanate Ceramics Studied by Electrochemical Hydrogen Charging. (4) 735

differential scanning calorimetry
Calorimetric Study of Nickel Molybdate: Heat Capacity, Enthalpy, Gibbs Energy of Formation. (11) 1927

differential thermal analysis
Crystallization Measurements Using DTA Methods: Applications to Zerodur®. (9) 1540
Kinetic Study of Amorphous Yttria–Alumina Fibers Using Differential Thermal Analysis. (1) 43

diffusion/diffusivity
Experiment and Theory of Diffusion in Alumina. (4) 554

dilatation/dilatometry
Critical Evaluation of Hot Forging Experiments: Case Study in Alumina. (7) 1099

dislocations
Determination of Pipe Diffusion Coefficients in Undoped and Magnesia-Doped Sapphire (α-Al_2O_3): A Study Based on Annihilation of Dislocation Dipoles. (4) 560
Dislocation Structures of Low-Angle and Near-Σ3 Grain Boundaries in Alumina Bicrystals. (4) 595
Electrical and Structural Characterization of a Low-Angle Tilt Grain Boundary in Iron-Doped Strontium Titanate. (6) 922
Interface Structure of an Epitaxial Cubic Ceria Film on Cubic Zirconia. (2) 363

dispersants/dispersion
Additive-Enhanced Redispersion of Ceramic Agglomerates. (9) 1487
Dispersing Behavior of Hydroxyapatite Powders Produced by Wet-Chemical Synthesis. (9) 1534
Effect of 2-Phosphonobutane-1,2,4-tricarboxylic Acid Adsorption on the Stability and Rheological Properties of Aqueous Nanosized 3-mol%-Yttria-Stabilized Tetragonal-Zirconia Polycrystal Suspensions. (7) 1106
Influence of a Dispersion of Aluminum Titanate Particles of Controlled Size on the Thermal Shock Resistance of Alumina. (5) 846
Influence of pH and Ionic Impurities on the Adsorption of Poly(acrylic) Dispersant onto a Zinc Oxide Surface. (12) 2001
Interactions in the Silicon Carbide–Polyacrylic Acid–Yttrium Ion System. (1) 5

dopants/doping
Effect of the Liquid-Phase Characteristic on the Microstructures and Dielectric Properties of Donor-(Niobium) and Acceptor- (Magnesium) Doped Barium Titanate. (1) 88
Effect of Titania and Lithia Doping on the Boundary Migration of Alumina under an Electric Field. (2) 347
Effect of Titania and Lithia Doping on the Boundary Migration of Alumina under an Electric Field. (4) 640
Elementary Mechanisms behind the High-Temperature Deformation Behavior of Lutetium-Doped Silicon Nitride. (3) 471
Fluorine as a Donor Dopant in Barium Titanate Ceramics. (3) 495
Internal Reduction of an Iron-Doped Magnesium Aluminosilicate Melt. (3) 487
Optimization of Reactive-Element Additions to Improve Oxidation Performance of Alumina-Forming Alloys. (4) 686

drying
Drying Stages during the Heating of High-Alumina, Ultra-Low-Cement Refractory Castables. (7) 1146
Vaporization Processes and Pressure Buildup during Dewatering of Dense Refractory Castables. (9) 1500

ductility
Ductile-Mode Material Removal of a Mica–Glass-Ceramic. (6) 1040

elastic constants
Ultrasonic Velocity Technique for Nondestructive Quantification of Elastic Moduli Degradation during Creep in Silicon Nitride. (5) 817

electrical properties
Effect of Porosity on the Electrical Properties of Polycrystalline Sodium Niobate: I, Electrical Conductivity. (2) 291
Integration of Ceramics Research with the Development of a Microsystem. (7) 1217
Roles of Alumina in Zirconia for Functional Applications. (11) 1867

electroceramics
Influence of [Ba + Ca]/[Ti + Zr] Ratio on the Interfacial Property of (Ba,Ca)(Ti,Zr)O_3 (BCTZ) Powders in an Aqueous Medium. (6) 1034

electrochemistry
electrodeposition Method for Terminals of Multilayer Ceramic Capacitors. (6) 905
Optimization of a Composite Working Electrode for a New Family of Electrochemical Cell for NO Decomposition. (7) 1155

electroless plating
Electroless Copper Coating of Zirconia Utilizing Palladium Catalyst. (2) 279

electrolysis
Preparation of Titanium Nitride Films from Amide Precursors Synthesized by Electrolysis. (1) 177

electron spin resonance
Measurement of Small Concentrations of Manganese in Lime (CaO) Using Electron Spin Resonance. (1) 195

erbium/erbium compounds
Effect of Yttrium and Erbium Ions on Epitaxial Phase Transformations in Alumina. (4) 541

etchants/etching
Fine Patterning of Hybrid Titania Films by Ultraviolet Irradiation. (5) 761

europium
Spectroscopic Properties and Local Structure of Eu^{3+} in Ge–Ga–S–CsBr (or CsCl) Glasses. (2) 286

eutectics
Residual Stress Distributions in the Solid Solution Eutectic, $Co_{1-x}Ni_xO/ZrO_2(CaO)$. (12) 2188

extrusion.
Ceramic Microtubes from Preceramic Polymers. (6) 1025

fabrication
Fabrication of Microcellular Ceramics Using Gaseous Carbon Dioxide. (12) 2231
Fabrication of New Cemented Carbide Containing Diamond Coated with Nanometer-Sized SiC Particles. (1) 73
Fabrication of NiO Nanoparticle-Coated Lead Zirconate Titanate Powders by the Heterogeneous Precipitation Method. (9) 1631
Fabrication of Single-Crystal α-Al_2O_3 Nanorods by Displacement Reactions. (8) 1385
Microtransfer Molding of Gelcasting Suspensions to Fabricate Barrier Ribs for Plasma Display Panel. (11) 1969

failure
Consequence of Intermittent Exposure to Moisture and Salt Fog on the High-Temperature Fatigue Durability of Several Ceramic-Matrix Composites. (8) 1282
Effect of Microstructure on Dynamic Failure Resistance of Titanium Diboride/Alumina Ceramics. (3) 449
Push-Pull Fatigue of Sintered Silicon Nitride Ceramics at Elevated Temperatures. (1) 135

ferrites
Quantitative Analysis of Zinc Vaporization from Manganese Zinc Ferrites. (5) 765
Use of the Retarded Solution-Reprecipitation Process to Attain a Higher Initial Permeability in MnZn Ferrites. (9) 1601

ferroelectricity/ferroelectric materials
Crack-Growth-Velocity-Dependent *R*-Curve Behavior in Lead Zirconate Titanate. (6) 1037
Direct Current-Voltage Failure of Lead-Based Relaxor Ferroelectrics with Silver Doping. (11) 1856
Fluorine as a Donor Dopant in Barium Titanate Ceramics. (3) 495

fibers
Application of a Tough Surface Layer to a Fiber-Bonded Composite. (9) 1612
Kinetic Study of Amorphous Yttria–Alumina Fibers Using Differential Thermal Analysis. (1) 43
Method for Production of α-Alumina Whiskers via Vapor–Liquid–Solid Deposition. (10) 1683
Processing and Properties of a Porous Oxide Matrix Composite Reinforced with Continuous Oxide Fibers. (10) 1733
Processing and Tribological Properties of Si_3N_4/Carbon Short Fiber Composites. (7) 1081
Suppression of Active Oxidation of Polycarbosilane-Derived Silicon Carbide Fibers by Preoxidation at High Oxygen Pressure. (5) 838
Synthesis and Characterization of Lead Zirconate Titanate Fibers Prepared by the Sol–Gel Method: The Role of the Acid. (5) 775

films
Dynamic Evolution of Grain-Boundary Films in Liquid-Phase-Sintered Ultrafine Silicon Carbide Material. (10) 1753
Fine Patterning of Hybrid Titania Films by Ultraviolet Irradiation. (5) 761
Molecular Dynamics Simulations of Calcium Silicate Intergranular Films between Silicon Nitride Crystals. (10) 1741
Preparation of Titanium Nitride Films from Amide Precursors Synthesized by Electrolysis. (1) 177

fluorine/fluorine compounds
Fluorine as a Donor Dopant in Barium Titanate Ceramics. (3) 495
Pressureless Sintering and Mechanical and Biological Properties of Fluor-hydroxyapatite Composites with Zirconia. (12) 2019

foams
A Simple Direct Casting Route to Ceramic Foams. (10) 1645

forging
Critical Evaluation of Hot Forging Experiments: Case Study in Alumina. (7) 1099
High-Temperature Strength of Sinter-Forged Silicon Nitride with Lutetia Additive. (8) 1430

formation
Chemically Bonded Phosphate Ceramics: I, A Dissolution Model of Formation. (11) 1838
Topotaxial Formation of $Mg_4Nb_2O_9$ and $MgNb_2O_6$ Thin Films on MgO (001) Single Crystals by Vapor–Solid Reaction. (6) 1049

fracture
Abrasive Wear Behavior of Heat-Treated ABC-Silicon Carbide. (8) 1370
Fractal Perimeters of Polishing-Induced Pull-Outs Present on Polished Cross Sections of Plasma-Sprayed Yttria-Stabilized Zirconia Coatings. (11) 1906
Fracture Toughness of a Toughened Silicon Nitride by ASTM C 1421. (6) 1043
Fracture-Mode Change in Alumina-Silicon Carbide Composites Doped with Rare-Earth Impurities. (10) 1789

fracture mechanics/toughness
Determining the Toughness of Ceramics from Vickers Indentations Using the Crack-Opening Displacements: An Experimental Study. (8) 1433
Measurement of Fracture Toughness of Plasma-Sprayed Al_2O_3 Coatings Using a Tapered Double Cantilever Beam Method. (8) 1437

fuel cells
Corrosion of Borosilicate Sealing Glasses for Molten Carbonate Fuel Cells. (11) 1918
Proton Conductivity in Zr^{4+}-Ion-Doped P_2O_5–SiO_2 Porous Glasses. (9) 1504

functionally gradient materials;
Combinatorial Ink-Jet Printer for Ceramics: Calibration. (10) 1654

gadolinium/gadolinium compounds
10-mol%-Gd_2O_3-Doped CeO_2 Solid Solutions via Carbonate Coprecipitation: A Comparative Study. (6) 915

gallium/gallium compounds
Microwave Dielectric Properties of Gallium-Doped Hexagonal Barium Titanate Ceramics. (3) 511

garnets
Novel Fast Lithium Ion Conduction in Garnet-Type $Li_5La_3M_2O_{12}$ (M = Nb, Ta). (3) 437
Undercooled Melt Formation and Shaping of Alumina–Yttrium Aluminum Garnet Eutectic Ceramics. (10) 1818

gelcasting
Microtransfer Molding of Gelcasting Suspensions to Fabricate Barrier Ribs for Plasma Display Panel. (11) 1969

gels
Preparation of $0.95Bi_{1/2}Na_{1/2}TiO_3$·$0.05BaTiO_3$ Ceramics by an Aqueous Citrate-Gel Route. (1) 192
Synthesis of Nanosized and Microporous Precipitated Hydroxyapatite in Synthetic Polymers and Biopolymers. (2) 357

glass
Cracking and the Indentation Size Effect for Knoop Hardness of Glasses. (3) 441
Independent Effects of Nitrogen Substitution for Oxygen and Yttrium Substitution for Magnesium on the Properties of Mg-Y-Si-Al-O-N Glasses. (3) 458
Influence of the Manufacturing Process on Corrosion Behavior of Soda-Lime-Silicate Glassware. (10) 1669
Local Structure of Sodium Aluminum Metaphosphate Glasses. (2) 317
Low-Fire Processing $(Ca_{1-x}Nd_{2x/3})TiO_3$ Microwave Ceramics. (1) 93
Measurement of Internal Stress in Glass Articles. (8) 1353
Properties of Nitrogen-Containing Yttria–Alumina–Silica Melts and Glasses. (4) 711

Proton Conductivity in Zr^{4+}-Ion-Doped P_2O_5–SiO_2 Porous Glasses. (9) 1504
Radiation Characteristics of Glass Containing Gas Bubbles. (8) 1313
Spectroscopic Properties and Local Structure of Eu^{3+} in Ge–Ga–S–CsBr (or CsCl) Glasses. (2) 286
Thermochemistry of Glasses in the Y_2O_3–Al_2O_3–SiO_2 System. (10) 1727
Toughening of Glass by a Piezoelectric Secondary Phase. (1) 180
Variable-Temperature Ion-Exchanged Engineered Stress Profile (ESP) Glasses. (11) 1979

glass-ceramics
Comparison of Various Solvent Media Efficiency in the Grinding of a Frit Containing Zirconium Oxide. (5) 864
Crystallization Measurements Using DTA Methods: Applications to Zerodur®. (9) 1540
Ductile-Mode Material Removal of a Mica–Glass-Ceramic. (6) 1040
Heavy Metals Bioremediation from Polluted Water by Glass-Ceramic Materials. (12) 2200
Joining of Calcium Phosphate Invert Glass-Ceramics on a β-Type Titanium Alloy. (6) 1031

grain boundaries
Atomic Structures and Energies of Σ7 Symmetrical Tilt Grain Boundaries in Alumina Bicrystals. (4) 574
Blocking Grain Boundaries in Yttria-Doped and Undoped Ceria Ceramics of High Purity. (1) 77
Current–Voltage Characteristics of Cobalt-Doped Inversion Boundaries in Zinc Oxide Bicrystals. (9) 1616
Dislocation Structures of Low-Angle and Near-Σ3 Grain Boundaries in Alumina Bicrystals. (4) 595
Effect of Grain Boundaries on Thermal Conductivity of Silicon Carbide Ceramic at 5 to 1300 K. (10) 1812
Effect of P_{O_2} on Bulk and Grain Boundary Resistance of n-Type $BaTiO_3$ at Cryogenic Temperatures. (9) 1554
Effect of Titania and Lithia Doping on the Boundary Migration of Alumina under an Electric Field. (4) 640
Effect of Titania and Lithia Doping on the Boundary Migration of Alumina under an Electric Field. (2) 347
Electrical and Structural Characterization of a Low-Angle Tilt Grain Boundary in Iron-Doped Strontium Titanate. (6) 922
Grain Boundary Grooving Studies of Yttrium Aluminum Garnet (YAG) Bicrystals. (5) 870
Modeling of Porous Ceramics Response to Compressive Loading. (12) 2218
Roles of Alumina in Zirconia for Functional Applications. (11) 1867
Singular Grain Boundaries in Alumina and Their Roughening Transition. (4) 603
Structure and Chemistry of Symmetrical Tilt Grain Boundaries in α-Al_2O_3: I. Bicrystals with "Clean" Interface. (4) 581
Structure and Chemistry of Symmetrical Tilt Grain Boundaries in α-Al_2O_3: II. Bicrystals with Y at the Interface. (4) 590
Structure of Sapphire Bicrystal Boundaries Produced by Liquid-Phase Sintering. (4) 612
Surface Energy Anisotropy of $SrTiO_3$ at 1400°C in Air. (11) 1933

grain growth
{111} Twin Formation and Abnormal Grain Growth in Barium Strontium Titanate. (1) 155
Abnormal Grain Growth in Alumina: Synergistic Effects of Yttria and Silica. (4) 650
Abnormal Grain Growth of Alumina: CaO Effect. (4) 644
Characteristics of Liquid Penetration into Undoped and Magnesia-Doped Alumina. (12) 2206
Cubic-Formation and Grain-Growth Mechanisms in Tetragonal Zirconia Polycrystal. (8) 1401
Effect of the Liquid-Forming Additive Content on the Kinetics of Abnormal Grain Growth in Alumina. (8) 1421
Grain Growth Control in Sb_2O_3-Doped Zinc Oxide. (8) 1379
Grain-Growth Behavior during Stepwise Sintering of Barium Titanate in Hydrogen Gas and Air. (12) 2228
Microstructure Development in Reactive-Templated Grain Growth of $Bi_{1/2}Na_{1/2}TiO_3$-Based Ceramics: Template and Formulation Effects. (5) 769
Nonequiaxial Grain Growth and Polytype Transformation of Sintered α-Silicon Carbide and β-Silicon Carbide. (12) 2222
Reactive-Templated Grain Growth of $Bi_{1/2}(Na,K)_{1/2}TiO_3$: Effects of Formulation on Texture Development. (7) 1132
Role of Vanadium Carbide Additive during Sintering of WC–Co: Mechanism of Grain Growth Inhibition. (1) 152

grain size
Crystallite and Grain-Size-Dependent Phase Transformations in Yttria-Doped Zirconia. (2) 360

graphite
Tribological Properties of Silicon Carbide and Silicon Carbide–Graphite Composite Ceramics in Sliding Contact. (6) 991

green body
Determination of the Minimum Time for Binder Removal and Optimum Geometry for Three-Dimensional Porous Green Bodies. (12) 2087
Elimination of Surface Spallation of Alumina Green Bodies Prepared by Acrylamide-Based Gelcasting via Poly(vinylpyrrolidone). (2) 266
Modeling of the Pressure Distribution in Three-Dimensional Porous Green Bodies during Binder Removal. (2) 234

grinding
Comparison of Various Solvent Media Efficiency in the Grinding of a Frit Containing Zirconium Oxide. (5) 864
Grinding Temperature Measurements in Magnesia-Partially-Stabilized Zirconia Using Infrared Spectrometry. (2) 333

hafnium/hafnium compounds
Pu, U, and Hf Incorporation in Gd Silicate Apatite. (7) 1223

hardness
Low-Temperature Processing and Mechanical Properties of Zirconia and Zirconia–Alumina Nanoceramics. (2) 299
Properties of Nitrogen-Containing Yttria–Alumina–Silica Melts and Glasses. (4) 711

heat treatment
Drying Stages during the Heating of High-Alumina, Ultra-Low-Cement Refractory Castables. (7) 1146
Effect of the Amount of Additives and Post-Heat Treatment on the Microstructure and Mechanical Properties of Yttrium–α-Sialon Ceramics. (12) 2136
Transparent Sintered Corundum with High Hardness and Strength. (1) 12

high temperature
High-Temperature Neutron Diffraction of the AlN–Al_2O_3–Y_2O_3 System. (4) 717
High-Temperature Stability of SiC-Based Composites in High-Water-Vapor-Pressure Environments. (8) 1272
Synergistic Effects of Water Vapor and Alkali Chloride Vapors on the High-Temperature Corrosion of SiC-Based Ceramics. (8) 1292

hot pressing
Hot-Pressed Silicon Nitride with Lu_2O_3 Additives: Oxidation and Its Effect on Strength. (11) 1900
Preparation of SiC/SiC Composites by Hot Pressing, Using Tyranno-SA Fiber as Reinforcement. (1) 26

hydration
Characterization by Multinuclear High-Resolution NMR of Hydration Products in Activated Blast-Furnace Slag Pastes. (10) 1712

hydrogen
Water-Induced Degradation of Barium Titanate Ceramics Studied by Electrochemical Hydrogen Charging. (4) 735

hydrolysis
Bioactivity and Mechanical Properties of Poly(dimethylsiloxane)-Modified Calcia–Silica Hybrids with Added Titania. (5) 806
Dynamics of Formation of Self-Organized Mesoporous AlO(OH)·αH_2O Structure in Al-Metal Surface Hydrolysis in Humid Air. (12) 2037
Spark Plasma Sintering of Nano-Sized TiN Prepared from TiO_2 by Controlled Hydrolysis of $TiCl_4$ and $Ti(O\text{-}i\text{-}C_3H_7)_4$ Solution. (9) 1609

hydroxyapatite
Composition and Crystallization of Hydroxyapatite Coating Layer Formed by Electron Beam Deposition. (1) 186
Dispersing Behavior of Hydroxyapatite Powders Produced by Wet-Chemical Synthesis. (9) 1534
Novel Method to Manufacture Porous Hydroxyapatite by Dual-Phase Mixing. (1) 65
Preparation of Polymethylmethacrylate-Reinforced Functionally Graded Hydroxyapatite Composites. (8) 1440
Pressureless Sintering and Mechanical and Biological Properties of Fluor-hydroxyapatite Composites with Zirconia. (12) 2019
Sintered Hydroxyapatite Latticework for Bone Substitute. (3) 517
Synthesis of Hydroxyapatite Nanopowders via Sucrose-Templated Sol–Gel Method. (6) 1055
Synthesis of Nanosized and Microporous Precipitated Hydroxyapatite in Synthetic Polymers and Biopolymers. (2) 357

impurities
Impurity Effects on Alumina Scale Growth. (4) 660

indentation
Cracking and the Indentation Size Effect for Knoop Hardness of Glasses. (3) 441
Determining the Toughness of Ceramics from Vickers Indentations Using the Crack-Opening Displacements: An Experimental Study. (8) 1433
Indentation-Induced Amorphization in Mullite Single Crystals. (10) 1821
Nanoindentation Method for Measuring Residual Stress in Brittle Materials. (5) 811
Scratch Damage in Ceramics: Role of Microstructure. (1) 141

indium/indium compounds
Defect Cluster Aggregation and Nonreducibility in Tin-Doped Indium Oxide. (10) 1707
Defect Structures of Tin-Doped Indium Oxide. (10) 1700

infiltration
Fabrication of Silicon Carbide–Mullite Composite by Melt Infiltration. (1) 39

infrared techniques
Grinding Temperature Measurements in Magnesia-Partially-Stabilized Zirconia Using Infrared Spectrometry. (2) 333
Infrared Spectroscopic Investigations in Ordered Barium Magnesium Niobate Ceramics. (11) 1985

ink-jet
Combinatorial Ink-Jet Printer for Ceramics: Calibration. (10) 1654

insulators/insulation
Design and Construction of Insulation Configuration for Ultra High-Temperature Microwave Processing of Ceramics. (12) 2082
Electronic Structure and Bonding in Crystalline $Y_{10}[SiO_4]_6N_2$. (8) 1424

interfaces
Adhesion of Copper and Alumina from First Principles. (4) 696
Correlation between Arrangement of Dielectric Layers and Microwave Dielectric Properties of $Mg_{0.93}Ca_{0.07}TiO_3$–$(Ca_{0.3}Li_{0.14}Sm_{0.42})TiO_3$ Ceramics. (8) 1330
Diffusion-Induced Interface Migration and Mechanical Property Improvement in the Lead Magnesium Niobate–Lead Titanate System. (11) 1988
Exploiting Covalency to Enhance Metal–Oxide and Oxide–Oxide Adhesion at Heterogeneous Interfaces. (3) 373
Influence of Interfacial Roughness on Fiber Sliding in Oxide Composites with La-Monazite Interphases. (2) 305
X-ray Diffraction Investigations of Microstructure of Calcium Hydroxide Crystallites in the Interfacial Transition Zone of Concrete. (12) 2162

inverse opals
Synthesis of (Pb,La)(Zr,Ti)O_3 Inverse Opal Photonic Crystals. (5) 867

ion-exchange
Variable-Temperature Ion-Exchanged Engineered Stress Profile (ESP) Glasses. (11) 1979

iron/iron compounds
Chemically Bonded Phosphate Ceramics: III, Reduction Mechanism and Its Application to Iron Phosphate Ceramics. (11) 1850
Kinetic Study of Black Fe_2O_3–Cr_2O_3 Pigment Synthesis: I, Influence of Synthesis Time and Temperature. (6) 945
Optimization of Reactive-Element Additions to Improve Oxidation Performance of Alumina-Forming Alloys. (4) 686
Role of α-Fe_2O_3 Morphology on the Color of Red Pigment for Porcelain. (1) 183
Role of Iron in Mullite Formation from Kaolins by Mössbauer Spectroscopy and Rietveld Refinement. (1) 129
Subsolidus Phase Relationships in the System Fe_2O_3–Al_2O_3–TiO_2 between 1000° and 1300°C. (6) 975

joints/joining
Effect of Bonding Pressure on Silicon Nitride Joining Using a Nickel-Chromium-Boron Metal Filler. (7) 1226

kaolinite
Energy-Filtering Transmission Electron Microscopy (EF-TEM) Study of a Modulated Structure in Metakaolinite, Represented by a 14 Å Modulation. (1) 174

kinetics
Influence of [Ba + Ca]/[Ti + Zr] Ratio on the Interfacial Property of (Ba,Ca)(Ti,Zr)O_3 (BCTZ) Powders in an Aqueous Medium. (6) 1034
Kinetic Process of Reoxidation of Base Metal Technology $BaTiO_3$-Based Multilayer Capacitors. (11) 1879
Kinetic Study of Black Fe_2O_3–Cr_2O_3 Pigment Synthesis: I, Influence of Synthesis Time and Temperature. (6) 945
Kinetics of {001} $Pb(Mg_{1/3}Nb_{2/3})O_3$–35 mol% $PbTiO_3$ Single Crystals Grown by Seeded Polycrystal Conversion. (12) 2182

lanthanum/lanthanum compounds
Aqueous Combustion Synthesis of Strontium-Doped Lanthanum Chromite Ceramics. (7) 1149
Chemical Solution Deposition of Columnar-Grained Metallic Lanthanum Nitrate Thin Films. (10) 1786
Homogeneity Region of Strontium- and Magnesium-Containing $LaGaO_3$ at Temperatures between 1100° and 1500°C in Air. (11) 1940
Lanthanum-Modified $(1-x)(Bi_{0.8}La_{0.2})(Ga_{0.05}Fe_{0.95})O_3$–$xPbTiO_3$ Crystalline Solutions: Novel Morphotropic Phase-Boundary Lead-Reduced Piezoelectrics. (12) 2111
Low-Temperature Synthesis and Properties of $LaMnO_{3\pm d}$ and $La_{0.67}R_{0.33}MnO_{3\pm d}$ (R = Ca, Sr, Ba) from Citrate Precursors. (3) 413

Microstructure Characterization of the $(1-x)La_{2/3}TiO_3$-$xLaAlO_3$ System. (8) 1395
Thermal Conductivity and Thermal Expansion Coefficients of the Lanthanum Rare-Earth-Element Zirconate System. (8) 1338

lasers
Atomic Force and Ultrasonic Force Microscopic Investigation of Laser-Treated Ceramic Head Sliders. (12) 2122

layered ceramics
Centrifugal Casting of Thin-Walled Ceramic Tubes from Preceramic Polymers. (7) 1211
Electrodeposition Method for Terminals of Multilayer Ceramic Capacitors. (6) 905
Failure Prediction Maps for a Model Al_2O_3|c-ZrO_2/Al_2O_3|Al_2O_3 Brittle Polycrystalline Trilayer Composite. (1) 121

lead
Direct Current-Voltage Failure of Lead-Based Relaxor Ferroelectrics with Silver Doping. (11) 1856

lead magnesium niobates
Diffusion-Induced Interface Migration and Mechanical Property Improvement in the Lead Magnesium Niobate–Lead Titanate System. (11) 1988
Influence of Excess PbO Additions on {111} Single-Crystal Growth of $Pb(Mg_{1/3}Nb_{2/3})O_3$–35 mol% $PbTiO_3$ by Seeded Polycrystal Conversion. (12) 2176
Kinetics of {001} $Pb(Mg_{1/3}Nb_{2/3})O_3$–35 mol% $PbTiO_3$ Single Crystals Grown by Seeded Polycrystal Conversion. (12) 2182
Single-Calcination Synthesis of Pyrochlore-Free $0.9Pb(Mg_{1/3}Nb_{2/3})O_3$–$0.1PbTiO_3$ and $Pb(Mg_{1/3}Nb_{2/3})O_3$ Ceramics Using a Coating Method. (2) 217

lead oxide
Influence of Excess PbO Additions on {111} Single-Crystal Growth of $Pb(Mg_{1/3}Nb_{2/3})O_3$–35 mol% $PbTiO_3$ by Seeded Polycrystal Conversion. (12) 2176

lead titanate
Diffusion-Induced Interface Migration and Mechanical Property Improvement in the Lead Magnesium Niobate–Lead Titanate System. (11) 1988
Lanthanum-Modified $(1-x)(Bi_{0.8}La_{0.2})(Ga_{0.05}Fe_{0.95})O_3$-$xPbTiO_3$ Crystalline Solutions: Novel Morphotropic Phase-Boundary Lead-Reduced Piezoelectrics. (12) 2111
Perovskite Formation and Dielectric Characteristics of $Pb(Zn_{1/3}Ta_{2/3})O_3$ with $PbTiO_3$ Substitution. (6) 929
Texture Development in Modified Lead Titanate Thin Films Obtained by Chemical Solution Deposition on Silicon-Based Substrates. (9) 1571

lead zirconate titanate
Crack-Growth-Velocity-Dependent *R*-Curve Behavior in Lead Zirconate Titanate. (6) 1037
Crack-Tip Toughness of a Soft Lead Zirconate Titanate. (11) 1973
Fabrication and Evaluation of Porous Piezoelectric Ceramics and Porosity-Graded Piezoelectric Actuators. (7) 1094
Fabrication of NiO Nanoparticle-Coated Lead Zirconate Titanate Powders by the Heterogeneous Precipitation Method. (9) 1631
Formation of Lead Zirconate Titanate Powders by Spray Pyrolysis. (9) 1474
Lead Zirconate Titanate Thin Films by Aerosol Plasma Deposition: Microstructure Analysis. (12) 2167
Multiaxial Deformation Behavior of PZT from Torsion Tests. (8) 1427
Properties of Lead Zirconate Titanate Thin Films Prepared Using a Triol Sol–Gel Route. (9) 1560
Synthesis and Characterization of Lead Zirconate Titanate Fibers Prepared by the Sol–Gel Method: The Role of the Acid. (5) 775

lithium
Microwave Sintering of Alumina at 2.45 GHz. (8) 1307
Novel Fast Lithium Ion Conduction in Garnet-Type $Li_5La_3M_2O_{12}$ (M = Nb, Ta). (3) 437

load
Modeling of Porous Ceramics Response to Compressive Loading. (12) 2218

magnesium
Independent Effects of Nitrogen Substitution for Oxygen and Yttrium Substitution for Magnesium on the Properties of Mg-Y-Si-Al-O-N Glasses. (3) 458

magnesium oxide
Alternative Explanation for the Role of Magnesia in the Sintering of Alumina Containing Small Amounts of a Liquid Phase. (4) 634
Characteristics of Liquid Penetration into Undoped and Magnesia-Doped Alumina. (12) 2206
Effect of Magnesium Oxide Addition on Surface Roughening of Alumina Grains in Anorthite Liquid. (4) 630
Precipitation of $MgO{\cdot}nAl_2O_3$ in Mg-Doped α-Al_2O_3 under Electron Irradiation. (1) 161

manganese/manganese compounds
Low-Temperature Synthesis and Properties of $LaMnO_{3\pm\delta}$ and $La_{0.67}R_{0.33}MnO_{3\pm\delta}$ (R = Ca, Sr, Ba) from Citrate Precursors. (3) 413
Measurement of Small Concentrations of Manganese in Lime (CaO) Using Electron Spin Resonance. (1) 195
Use of the Retarded Solution-Reprecipitation Process to Attain a Higher Initial Permeability in MnZn Ferrites. (9) 1601

measurement
Contactless Density Measurement of Liquid Nd-Doped 50%CaO–50%Al_2O_3. (12) 2234

mechanical properties
Contactless Density Measurement of Liquid Nd-Doped 50%CaO–50%Al_2O_3. (12) 2234
Dynamics of Formation of Self-Organized Mesoporous $AlO(OH){\cdot}\alpha H_2O$ Structure in Al-Metal Surface Hydrolysis in Humid Air. (12) 2037
Effect of Carbon and Silicon Carbide/Carbon Interlayers on the Mechanical Behavior of Tyranno-SA-Fiber-Reinforced Silicon Carbide-Matrix Composites. (5) 851
Effect of Seeding on the Microstructure and Mechanical Properties of α-SiAlON: III, Comparison of Modifying Cations. (7) 1168
Evaluation of Mechanical Stability of a Commercial Sn88 Silicon Nitride at Intermediate Temperatures. (7) 1176
From CT Scan to Ceramic Bone Graft. (7) 1076
High-Temperature Resistant Composites in the AlN–SiC–$MoSi_2$ System. (10) 1720
Optical and Mechanical Properties of α/β Composite Sialons. (3) 520
Porous 2H-Silicon Carbide Ceramics Fabricated by Carbothermal Reaction between Silicon Nitride and Carbon. (6) 910
Processing, Fracture Toughness, and Vickers Hardness of Allylhydridopolycarbosilane-Derived Silicon Carbide. (2) 342
Solid-Solution Effects of a Small Amount of Nickel Oxide Addition on Phase Stability and Mechanical Properties of Yttria-Stabilized Tetragonal Zirconia Polycrystals. (3) 523

melts
Internal Reduction of an Iron-Doped Magnesium Aluminosilicate Melt. (3) 487
Kinetic Study of Amorphous Yttria–Alumina Fibers Using Differential Thermal Analysis. (1) 43
Properties of Nitrogen-Containing Yttria–Alumina–Silica Melts and Glasses. (4) 711
Undercooled Melt Formation and Shaping of Alumina–Yttrium Aluminum Garnet Eutectic Ceramics. (10) 1818

membranes
Performance of Alumina Membranes from New Nanosynthesis in Ultrafiltration and Nanofiltration. (2) 241

metallo-organics
Aluminum Silicate Films Obtained by Low-Pressure Metal-Organic Chemical Vapor Deposition. (6) 969

microcracking
Atomic Force and Ultrasonic Force Microscopic Investigation of Laser-Treated Ceramic Head Sliders. (12) 2122
Detection of Drying-Induced Microcracking in Cementitious Materials with Space-Resolved ^1H Nuclear Magnetic Resonance Relaxometry. (5) 800

microstructure
{111} Twin Formation and Abnormal Grain Growth in Barium Strontium Titanate. (1) 155
Abrasive Wear Behavior of Heat-Treated ABC-Silicon Carbide. (8) 1370
Atomic Structures and Energies of $\Sigma 7$ Symmetrical Tilt Grain Boundaries in Alumina Bicrystals. (4) 574
Effect of Addition of Oxides on Low-Temperature Oxidation of Molybdenum Disilicide. (4) 731
Effects of High Water-Vapor Pressure on Oxidation of Silicon Carbide at 1200°C. (8) 1249
Effect of Microstructural Control on Thermoelectric Properties of Hot-Pressed Aluminum-Doped Zinc Oxide. (12) 2063
Effect of Microstructure on Dynamic Failure Resistance of Titanium Diboride/Alumina Ceramics. (3) 449
Evidence of Bilevel Solubility in the Bimodal Microstructure of TiO_2-Doped Alumina. (11) 1953
Evolution of Average Microstructural Properties in the Final Stage Sintering of Alumina. (2) 252
Fabrication of Macroporous Alumina with Tailored Porosity. (12) 2050
Formation of an Environmental Barrier Coating Using DC-RF Hybrid Plasma. (10) 1823
High-Temperature Resistant Composites in the AlN–SiC–$MoSi_2$ System. (10) 1720
Microstructural Evolution and Microhardness in Zirconia-Based EB-PVD Thermal Barrier Coatings. (6) 959
Microstructural Evolution of Calcium-Doped α-Alumina. (4) 623
Microstructure Characterization of the $(1-x)La_{2/3}TiO_3$-$xLaAlO_3$ System. (8) 1395
Microstructure Development in Reactive-Templated Grain Growth of $Bi_{1/2}Na_{1/2}TiO_3$-Based Ceramics: Template and Formulation Effects. (5) 769
Microstructure Tailoring for High Thermal Conductivity of β-Si_3N_4 Ceramics. (1) 197
Phase Formation and Microstructure of Titanium Oxides and Composites Produced by Thermal Plasma Oxidation of Titanium Carbide. (9) 1456
Preparation of Dense MgB_2 Bulk Superconductors by Spark Plasma Sintering. (10) 1800
Preparation of Nanostructured Hexagonal Boron Nitride Powder. (11) 1982

microwaves
Compositional Dependence of Microwave Dielectric Properties in $(1-x)(Na_{1/2}Nd_{1/2})TiO_3$–$xNd(Mg_{1/2}Ti_{1/2})O_3$ Ceramics. (7) 1159
Correlation between Arrangement of Dielectric Layers and Microwave Dielectric Properties of $Mg_{0.93}Ca_{0.07}TiO_3$–$(Ca_{0.3}Li_{0.14}Sm_{0.42})TiO_3$ Ceramics. (8) 1330
Design and Construction of Insulation Configuration for Ultra High-Temperature Microwave Processing of Ceramics. (12) 2082
Infrared Spectroscopic Investigations in Ordered Barium Magnesium Niobate Ceramics. (11) 1985
Low-Fire Processing $(Ca_{1-x}Nd_{2x/3})TiO_3$ Microwave Ceramics. (1) 93
Microwave Dielectric Properties of Gallium-Doped Hexagonal Barium Titanate Ceramics. (3) 511
Microwave Dielectric Properties of $RE_{1-x}RE'_xTiNbO_6$ [RE=Pr, Nd, Sm; RE′=Gd, Dy, Y] Ceramics. (10) 1695
Microwave Plasma Synthesis of Nanostructured γ-Al_2O_3 Powders. (9) 1635
Microwave-Assisted Combustion Synthesis of Tantalum Nitride in a Fluidized Bed. (2) 222

migration
Effect of Titania and Lithia Doping on the Boundary Migration of Alumina under an Electric Field. (2) 347
Effect of Titania and Lithia Doping on the Boundary Migration of Alumina under an Electric Field. (4) 640

modeling/model
Chemically Bonded Phosphate Ceramics: I, A Dissolution Model of Formation. (11) 1838
Crack-Tip Toughness of a Soft Lead Zirconate Titanate. (11) 1973
Failure Prediction Maps for a Model Al_2O_3|c-ZrO_2/Al_2O_3|Al_2O_3 Brittle Polycrystalline Trilayer Composite. (1) 121
First-Principles Calculations of Microdomain Models for β-Sialon Si_6AlON_7. (11) 1956
Influence of Distributed Particle Size on the Determination of the Parabolic Rate Constant for Oxidation by the Powder Method. (2) 351
Modeling of the Pressure Distribution in Three-Dimensional Porous Green Bodies during Binder Removal. (2) 234
Transparent Alumina: A Light-Scattering Model. (3) 480

molybdenum
Calorimetric Study of Nickel Molybdate: Heat Capacity, Enthalpy, Gibbs Energy of Formation. (11) 1927

molybdenum disilicide
Effect of Addition of Oxides on Low-Temperature Oxidation of Molybdenum Disilicide. (4) 731

morphology
Effect of Precursor and Solvent on Morphology of Zirconia Nanoparticles Produced by Combustion Aerosol Synthesis. (2) 273
Morphology of Oxide Particles Made by the Emulsion Combustion Method. (6) 898
Nanostructures at Electrostatic Bond Interfaces. (10) 1773

Mossbauer spectroscopy
Role of Iron in Mullite Formation from Kaolins by Mössbauer Spectroscopy and Rietveld Refinement. (1) 129

mullite
Fabrication of Silicon Carbide–Mullite Composite by Melt Infiltration. (1) 39
Indentation-Induced Amorphization in Mullite Single Crystals. (10) 1821
Mullite–Aluminum Phosphate Laminated Composite Fabricated by Tape Casting. (11) 1962
Quaternary System Al_2O_3–CaO–MgO–SiO_2: I, Study of the Crystallization Volume of Al_2O_3. (12) 2195
Role of Iron in Mullite Formation from Kaolins by Mössbauer Spectroscopy and Rietveld Refinement. (1) 129
Upper Temperature Limit of Environmental Barrier Coatings Based on Mullite and BSAS. (8) 1299

multilayer capacitor
Atmospheric Dependence on Dielectric Loss of $\frac{1}{5}Ba_6Nb_2O_{15}$-$\frac{2}{5}BaNb_2O_6$ Ceramics. (5) 795
Kinetic Process of Reoxidation of Base Metal Technology $BaTiO_3$-Based Multilayer Capacitors. (11) 1879
Water-Induced Degradation of Barium Titanate Ceramics Studied by Electrochemical Hydrogen Charging. (4) 735

nanocomposites
A Novel Processing Route to Develop a Dense Nanocrystalline Alumina Matrix (<100 nm) Nanocomposite Material. (1) 200
High-Resolution Transmission Electron Microscopy Study of the Microstructural Development of a Silicon Carbonitride Nanocomposite. (5) 857
Nanostructured Silicon Oxide–Nickel Oxide Sol–Gel Films with Enhanced Optical Carbon Monoxide Gas Sensitivity. (9) 1638
Nanostructures at Electrostatic Bond Interfaces. (10) 1773

Preparation of a Translucent, Conductive, Porous Nanocomposite. (11) 1991
Silicon Nitride–Silicon Carbide Nancocomposites Fabricated by Electric-Field-Assisted Sintering. (3) 526
Structural, Dielectric, and Thermal Properties of Strontium Barium Niobate-Doped Fused Silica Nanocomposites. (8) 1333

nanomaterials
Comment on "Densification Energy during Nanoindentation of Silica Glass". (12) 2237
Fabrication of Dense Nanostructured Silicon Carbide Ceramics through Two-Step Sintering. (10) 1803
Low-Temperature Processing and Mechanical Properties of Zirconia and Zirconia–Alumina Nanoceramics. (2) 299
Low-Temperature Synthesis of Nanocrystalline Yttrium Aluminum Garnet Powder Using Triethanolamine. (10) 1651
Nanocrystalline Aluminum Nitride: I, Vapor-Phase Synthesis in a Forced-Flow Reactor. (7) 1114
Nanocrystalline Aluminum Nitride: II, Sintering and Properties. (7) 1121
Nanosize Powders of Aluminum Nitride Synthesized by Pulsed Wire Discharge. (3) 420
Preparation of Nanostructured Hexagonal Boron Nitride Powder. (11) 1982
Reply to "Comment on 'Densification Energy during Nanoindentation of Silica Glass'". (12) 2239
Synthesis of Bismuth Sodium Titanate Nanosized Powders by Solution/Sol–Gel Process. (9) 1464
Synthesis of Hydroxyapatite Nanopowders via Sucrose-Templated Sol–Gel Method. (6) 1055
Wet-Chemical Routes Leading to Scandia Nanopowders. (9) 1493

nanoparticulates
A New Glycothermal Process for Barium Titanate Nanoparticle Synthesis. (10) 1793
Effect of Precursor and Solvent on Morphology of Zirconia Nanoparticles Produced by Combustion Aerosol Synthesis. (2) 273
Novel Way to Synthesize Nanocrystalline Aluminum Nitride from Coarse Aluminum Powder. (7) 1214
Role of the Initial Degree of Ionization of Polyethylenimine in the Dispersion of Silicon Carbide Nanoparticles. (1) 189
Synthesis and Characterization of Nanocrystalline Niobium Nitride Powders. (7) 1205
Synthesis of Nanocrystalline α-Al_2O_3 Powders from Nanometric Ammonium Aluminum Carbonate Hydroxide. (8) 1321
Synthesizing and Comparing the Photocatalytic Properties of High Surface Area Rutile and Anatase Titania Nanoparticles. (10) 1677
Tetragonal Nanocrystalline Barium Titanate Powder: Preparation, Characterization, and Dielectric Properties. (1) 203

neodymium/neodymium compounds
Compositional Dependence of Microwave Dielectric Properties in $(1-x)(Na_{1/2}Nd_{1/2})TiO_3$–$xNd(Mg_{1/2}Ti_{1/2})O_3$ Ceramics. (7) 1159
Thermal, Dielectric, and Optical Properties of Neodymium Borosilicate Glasses for Thick Films. (7) 1202

Nextel
Characterization and High-Temperature Mechanical Behavior of an Oxide/Oxide Composite. (6) 981
Combined Spectroscopic and Thermodynamic Investigation of Nextel-720 Fiber/Alumina Ceramic-Matrix Composite in Air and Water Vapor at 1100°C. (9) 1628

Nicalon/Nicalon compounds
Consequence of Intermittent Exposure to Moisture and Salt Fog on the High-Temperature Fatigue Durability of Several Ceramic-Matrix Composites. (8) 1282
Thermal Stability of a Chemically Vapor Deposited Multilayer Coating Containing Amorphous Silica and Rutile Titania on Hi-Nicalon Fiber. (10) 1797

nickel/nickel compounds
Alumina Grown during Deposition of Thermal Barrier Coatings on NiCrAlY. (4) 676
Effect of Bonding Pressure on Silicon Nitride Joining Using a Nickel-Chromium-Boron Metal Filler. (7) 1226
Rim Structure in $Ti(C_{0.7}N_{0.3})$–WC–Ni Cermets. (10) 1761
Solid-Solution Effects of a Small Amount of Nickel Oxide Addition on Phase Stability and Mechanical Properties of Yttria-Stabilized Tetragonal Zirconia Polycrystals. (3) 523
Synthesis of Highly Porous Yttria-Stabilized Zirconia by Tape-Casting Methods. (3) 395

niobates
Effect of Porosity on the Electrical Properties of Polycrystalline Sodium Niobate: I, Electrical Conductivity. (2) 291
Infrared Spectroscopic Investigations in Ordered Barium Magnesium Niobate Ceramics. (11) 1985

niobium/niobium compounds
Anatase Sol Prepared from Peroxotitanium Complex Aqueous Solution Containing Niobium or Vanadium. (9) 1605
Dielectric Properties of the Fluorite-like Bi_2O_3–Nb_2O_5 Solid Solution and the Tetragonal Bi_3NbO_7. (6) 939
Synthesis and Characterization of Nanocrystalline Niobium Nitride Powders. (7) 1205
Synthesis of Niobium(V)-Stabilized Tetragonal Zirconia Nanocrystalline Powders. (3) 514

nitridation
Novel Way to Synthesize Nanocrystalline Aluminum Nitride from Coarse Aluminum Powder. (7) 1214
Raman Investigation of the Nitridation of Yttria-Stabilized Tetragonal Zirconia. (1) 169
Reaction Synthesis of Magnesium Silicon Nitride Powder. (7) 1088
Reduction–Nitridation Synthesis of Titanium Nitride Nanocrystals. (1) 206
Synthesis and Characterization of Nanocrystalline Niobium Nitride Powders. (7) 1205
Synthesis of Aluminum Nitride Nanopowder by Gas-Reduction–Nitridation Method. (6) 1046

nitrides
Reaction Synthesis of Magnesium Silicon Nitride Powder. (7) 1088

nitrogen
Independent Effects of Nitrogen Substitution for Oxygen and Yttrium Substitution for Magnesium on the Properties of Mg-Y-Si-Al-O-N Glasses. (3) 458
Properties of Nitrogen-Containing Yttria–Alumina–Silica Melts and Glasses. (4) 711

nuclear magnetic resonance
Characterization by Multinuclear High-Resolution NMR of Hydration Products in Activated Blast-Furnace Slag Pastes. (10) 1712
Detection of Drying-Induced Microcracking in Cementitious Materials with Space-Resolved ^1H Nuclear Magnetic Resonance Relaxometry. (5) 800

nucleation
Effects of Oxygen Partial Pressure on the Nucleation Behavior and Morphology of Chemically-Vapor-Deposited Zirconia on Hi-Nicalon Fiber and Si. (12) 2031
Formation of β-Silicon Nitride Crystals from (Si,Al,Mg,Y)(O,N) Liquid: I, Phase, Composition, and Shape Evolutions. (9) 1578
Investigation of Apatite Deposition onto Charged Surfaces in Aqueous Solutions Using a Quartz-Crystal Microbalance. (5) 782
Nucleation Sites of Calcium Phosphate Crystals during Collagen Mineralization. (6) 1052

optical materials/properties
Defect Cluster Aggregation and Nonreducibility in Tin-Doped Indium Oxide. (10) 1707
Defect Structures of Tin-Doped Indium Oxide. (10) 1700
Nanostructured Silicon Oxide–Nickel Oxide Sol–Gel Films with Enhanced Optical Carbon Monoxide Gas Sensitivity. (9) 1638
Optical and Mechanical Properties of α/β Composite Sialons. (3) 520
Optical Properties and London Dispersion Forces of Amorphous Silica Determined by Vacuum Ultraviolet Spectroscopy and Spectroscopic Ellipsometry. (11) 1885
Preparation of a Translucent, Conductive, Porous Nanocomposite. (11) 1991
Synthesis of (Pb,La) (Zr,Ti)O_3 Inverse Opal Photonic Crystals. (5) 867
Thermal, Dielectric, and Optical Properties of Neodymium Borosilicate Glasses for Thick Films. (7) 1202
Transparent Alumina: A Light-Scattering Model. (3) 480
Transparent Sintered Corundum with High Hardness and Strength. (1) 12

oxidation
Characterization of Precursor-Derived Silicon-Carbon-Nitrogen Ceramics after Creep Testing. (9) 1598
Effect of Addition of Oxides on Low-Temperature Oxidation of Molybdenum Disilicide. (4) 731
Effects of High Water-Vapor Pressure on Oxidation of Silicon Carbide at 1200°C. (8) 1249
Formation of an Environmental Barrier Coating Using DC-RF Hybrid Plasma. (7) 1068
Formation of an Environmental Barrier Coating Using DC-RF Hybrid Plasma. (10) 1823
Hot-Pressed Silicon Nitride with Lu_2O_3 Additives: Oxidation and Its Effect on Strength. (11) 1900
Influence of Distributed Particle Size on the Determination of the Parabolic Rate Constant for Oxidation by the Powder Method. (2) 351
Initial Stages of Growth of Alumina on NiAl(001) at 1025 K. (4) 669
Oxidation and Volatilization of Silica Formers in Water Vapor. (8) 1238
Paralinear Oxidation of Silicon Nitride in a Water-Vapor/Oxygen Environment. (8) 1256
Strength of Silicon Nitride after Thermal Shock. (9) 1619
Suppression of Active Oxidation of Polycarbosilane-Derived Silicon Carbide Fibers by Preoxidation at High Oxygen Pressure. (5) 838
Thermal Response and Oxidation of Tyranno^{SR}-Fiber-Reinforced Si-Ti-C-O Matrix Composites for a Thermal Protection System in High-Enthalpy Dissociated Air. (5) 830

oxidation resistance
Improvement in the Oxidation Resistance of Oxide-Matrix Silicon Carbide-Particulate Composites by Mullite Infiltration. (10) 1806

oxides
Effectiveness of Monazite Coatings in Oxide/Oxide Composites after Long-Term Exposure at High Temperature. (2) 325
Enhanced Properties of Tin(IV) Oxide Based Materials by Field-Activated Sintering. (6) 893
Factors Affecting the Preparation of $Sr_2Fe_{2-x}Mo_xO_6$. (9) 1453
Influence of Interfacial Roughness on Fiber Sliding in Oxide Composites with La-Monazite Interphases. (2) 305
Morphology of Oxide Particles Made by the Emulsion Combustion Method. (6) 898
Processing and Properties of a Porous Oxide Matrix Composite Reinforced with Continuous Oxide Fibers. (10) 1733
Undercooled Melt Formation and Shaping of Alumina–Yttrium Aluminum Garnet Eutectic Ceramics. (10) 1818

oxygen
Effects of Oxygen Partial Pressure on the Nucleation Behavior and Morphology of Chemically-Vapor-Deposited Zirconia on Hi-Nicalon Fiber and Si. (12) 2031
Effect of P_{O_2} on Bulk and Grain Boundary Resistance of n-Type $BaTiO_3$ at Cryogenic Temperatures. (9) 1554
Oxygen Storage Capacity, Specific Surface Area, and Pore-Size Distribution of Ceria–Zirconia Solid Solutions Directly Formed by Thermal Hydrolysis. (12) 2209

oxynitride
Properties of Nitrogen-Containing Yttria–Alumina–Silica Melts and Glasses. (4) 711

particle size distribution
Influence of Distributed Particle Size on the Determination of the Parabolic Rate Constant for Oxidation by the Powder Method. (2) 351

particles
Numerical Simulation of Solid-State Sintering: I, Sintering of Three Particles. (1) 49

permeablity
Use of the Retarded Solution-Reprecipitation Process to Attain a Higher Initial Permeability in MnZn Ferrites. (9) 1601

perovskites
Compositional Dependence of Microwave Dielectric Properties in $(1-x)(Na_{1/2}Nd_{1/2})TiO_3$–$xNd(Mg_{1/2}Ti_{1/2})O_3$ Ceramics. (7) 1159
Factors Affecting the Preparation of $Sr_2Fe_{2-x}Mo_xO_6$. (9) 1453
Influence of [Ba + Ca]/[Ti + Zr] Ratio on the Interfacial Property of (Ba,Ca)(Ti,Zr)O_3 (BCTZ) Powders in an Aqueous Medium. (6) 1034
Low-Temperature Synthesis and Properties of $LaMnO_{3\pm d}$ and $La_{0.67}R_{0.33}MnO_{3\pm d}$ (R = Ca, Sr, Ba) from Citrate Precursors. (3) 413
Perovskite Formation and Dielectric Characteristics of $Pb(Zn_{1/3}Ta_{2/3})O_3$ with $PbTiO_3$ Substitution. (6) 929
Phase Composition and Vaporization Study of $LaGa_{1-x}Al_xO_3$, $0 \le x \le 1$, and $La_{0.9}Sr_{0.1}Ga_{0.8-x}Al_xMg_{0.2}O_{2.85}$, $x = 0.1, 0.2, 0.3$. (11) 1911
Unique Dielectric Behavior of $0.6Pb(Ni_{1/2}W_{1/2})O_3$-$0.4PbTiO_3$ Derived from Mechanical Activation. (5) 791

phase diagrams
CeO_2–CoO Phase Diagram. (9) 1567
Hydrothermal Chemistry of Silicates: Low-Temperature Synthesis of y-Yttrium Disilicate. (9) 1592
Quaternary System Al_2O_3–CaO–MgO–SiO_2: I, Study of the Crystallization Volume of Al_2O_3. (12) 2195

phase equilibria
Quaternary System Al_2O_3–CaO–MgO–SiO_2: I, Study of the Crystallization Volume of Al_2O_3. (12) 2195
Subsolidus Phase Relationships in the System Fe_2O_3–Al_2O_3–TiO_2 between 1000° and 1300°C. (6) 975

phase transformations
Crystallite and Grain-Size-Dependent Phase Transformations in Yttria-Doped Zirconia. (2) 360
Increase in Phase Transition Temperature of Activated Alumina with Nano-Zirconia Synthesized by Pulsed Wire Discharge. (9) 1522
Martensitic Relief Observation by Atomic Force Microscopy in Yttria-Stabilized Zirconia. (12) 2225
Synthesis of Nanocrystalline α-Al_2O_3 Powders from Nanometric Ammonium Aluminum Carbonate Hydroxide. (8) 1321

phonons
Effect of Grain Boundaries on Thermal Conductivity of Silicon Carbide Ceramic at 5 to 1300 K. (10) 1812

phosphates
Chemically Bonded Phosphate Ceramics: I, A Dissolution Model of Formation. (11) 1838
Chemically Bonded Phosphate Ceramics: II, Warm-Temperature Process for Alumina Ceramics. (11) 1845

Chemically Bonded Phosphate Ceramics: III. Reduction Mechanism and Its Application to Iron Phosphate Ceramics. (11) 1850
Local Structure of Sodium Aluminum Metaphosphate Glasses. (2) 317
Physicochemical Degradation of Titania-Stabilized Soluble Phosphate Glasses for Medical Applications. (8) 1345

photoreaction
Structure Sensitivity of Photochemical Oxidation and Reduction Reactions on $SrTiO_3$ Surfaces. (7) 1182

piezoelectric materials/properties
$(Bi_{1/2}Na_{1/2})TiO_3$–$Ba(Cu_{1/2}W_{1/2})O_3$ Lead-Free Piezoelectric Ceramics. (10) 1809
Fabrication and Evaluation of Porous Piezoelectric Ceramics and Porosity-Graded Piezoelectric Actuators. (7) 1094
Hydrothermal Synthesis of Bismuth Titanate Powders. (10) 1815
Lanthanum-Modified $(1-x)(Bi_{0.8}La_{0.2})(Ga_{0.05}Fe_{0.95})O_3$:$xPbTiO_3$ Crystalline Solutions: Novel Morphotropic Phase-Boundary Lead-Reduced Piezoelectrics. (12) 2111
Synthesis of Bismuth Sodium Titanate Nanosized Powders by Solution/Sol–Gel Process. (9) 1464
Toughening of Glass by a Piezoelectric Secondary Phase. (1) 180

pigment
Kinetic Study of Black Fe_2O_3–Cr_2O_3 Pigment Synthesis: I, Influence of Synthesis Time and Temperature. (6) 945
Role of α-Fe_2O_3 Morphology on the Color of Red Pigment for Porcelain. (1) 183

plasma
Damage Behavior in Ceramic Plasma-Coated and Uncoated Glass with Steel-Ball Impact. (7) 1220
Effects of High Water-Vapor Pressure on Oxidation of Silicon Carbide at 1200°C. (8) 1249
Formation of an Environmental Barrier Coating Using DC-RF Hybrid Plasma. (7) 1068
Formation of an Environmental Barrier Coating Using DC-RF Hybrid Plasma. (10) 1823
Microwave Plasma Synthesis of Nanostructured γ-Al_2O_3 Powders. (9) 1635

plasma spraying
Fractal Perimeters of Polishing-Induced Pull-Outs Present on Polished Cross Sections of Plasma-Sprayed Yttria-Stabilized Zirconia Coatings. (11) 1906
Measurement of Fracture Toughness of Plasma-Sprayed Al_2O_3 Coatings Using a Tapered Double Cantilever Beam Method. (8) 1437
Metastable Phase Formation in Plasma-Sprayed ZrO_2 (Y_2O_3)–Al_2O_3. (8) 1415

platinum
Transmission Electron Microscopy Investigation of $Pt/Ba_{0.7}Sr_{0.3}TiO_3/Pt$ Capacitors with Different Annealing Processes. (7) 1190

pollucite
Low-Thermal-Expansion Properties of Sodium- and Lithium-Substituted Cubic Cesium Leucite Compounds. (8) 1360

polycarbosilane
Fabrication of Microcellular Ceramics Using Gaseous Carbon Dioxide. (12) 2231
Suppression of Active Oxidation of Polycarbosilane-Derived Silicon Carbide Fibers by Preoxidation at High Oxygen Pressure. (5) 838

polycrystalline materials
Effect of Porosity on the Electrical Properties of Polycrystalline Sodium Niobate, II: Dielectric Behavior. (12) 2103
Transparent Alumina: A Light-Scattering Model. (3) 480

polymers/polymerization
Ceramic Microtubes from Preceramic Polymers. (6) 1025
Ceramization of Reflux-Treated Polymethylsilane Precursors to Silicon Carbide. (2) 227
Preparation of Polymethylmethacrylate-Reinforced Functionally Graded Hydroxyapatite Composites. (8) 1440
Processing, Fracture Toughness, and Vickers Hardness of Allylhydridopolycarbosilane-Derived Silicon Carbide. (2) 342

porcelain
Role of α-Fe_2O_3 Morphology on the Color of Red Pigment for Porcelain. (1) 183

pores/porosity
Centrifugal Casting of Thin-Walled Ceramic Tubes from Preceramic Polymers. (7) 1211
Determination of the Minimum Time for Binder Removal and Optimum Geometry for Three-Dimensional Porous Green Bodies. (12) 2087
Development of Solid Oxide Fuel Cell Anodes Using Metal-Coated Pore-Forming Agents. (3) 401
Effect of Porosity on the Electrical Properties of Polycrystalline Sodium Niobate: I, Electrical Conductivity. (2) 291
Effect of Porosity on the Electrical Properties of Polycrystalline Sodium Niobate, II: Dielectric Behavior. (12) 2103
Fabrication and Evaluation of Porous Piezoelectric Ceramics and Porosity-Graded Piezoelectric Actuators. (7) 1094
Fractal Perimeters of Polishing-Induced Pull-Outs Present on Polished Cross Sections of Plasma-Sprayed Yttria-Stabilized Zirconia Coatings. (11) 1906
From CT Scan to Ceramic Bone Graft. (7) 1076
Modeling of the Pressure Distribution in Three-Dimensional Porous Green Bodies during Binder Removal. (2) 234
Optimization of a Composite Working Electrode for a New Family of Electrochemical Cell for NO Decomposition. (7) 1155
Performance of Alumina Membranes from New Nanosynthesis in Ultrafiltration and Nanofiltration. (2) 241
Porous Silica Matrix Obtained from Pyrex Glass by Hydrothermal Treatment: Characterization and Nature of the Porosity. (7) 1196
Positronium Annihilation Study of Porosity in Silica Xerogels Prepared by a Sol–Gel Process. (9) 1625
Preparation of a Translucent, Conductive, Porous Nanocomposite. (11) 1991
Reactive Synthesis of a Porous Calcium Zirconate/Spinel Composite with Idiomorphic Spinel Grains. (7) 1128

porous materials
Bending Creep Test to Measure the Viscosity of Porous Materials during Sintering. (6) 877
Fabrication of Macroporous Alumina with Tailored Porosity. (12) 2050
Green Fabrication of Porous Ceramics Using an Aqueous Electrophoretic Deposition Process. (7) 1230
Modeling of Porous Ceramics Response to Compressive Loading. (12) 2218
Novel Method to Manufacture Porous Hydroxyapatite by Dual-Phase Mixing. (1) 65
Preparation and Characterization of Macroporous α-Alumina. (9) 1481
Processing and Properties of a Porous Oxide Matrix Composite Reinforced with Continuous Oxide Fibers. (10) 1733
Thermal Shock Behavior of Isotropic and Anisotropic Porous Silicon Nitride. (4) 738

powders
Dispersing Behavior of Hydroxyapatite Powders Produced by Wet-Chemical Synthesis. (9) 1534
Formation of Lead Zirconate Titanate Powders by Spray Pyrolysis. (9) 1474
Kinetics and Mechanism of Formation of Barium Zirconate from Barium Carbonate and Zirconia Powders. (1) 19
Metastable Phase Formation in Plasma-Sprayed ZrO_2 (Y_2O_3)–Al_2O_3. (8) 1415
Nanosize Powders of Aluminum Nitride Synthesized by Pulsed Wire Discharge. (3) 420
Powder-Based Tin Oxide Microcomponents on Silicon Substrates Fabricated by Micromolding in Capillaries. (3) 407
Preparation of Highly Dispersed Ultrafine Barium Titanate Powder by Using Microbial-Derived Surfactant. (12) 2011
Transparent Sintered Corundum with High Hardness and Strength. (1) 12
Yttrium Silicate Powders Produced by the Sol–Gel Method, Structural and Thermal Characterization. (9) 1595

praseodymium/praseodymium compounds
Optimization of Praseodymium-Doped Cerium Pigment Synthesis Temperature. (3) 425

precipitates/precipitation
10-mol%-Gd_2O_3-Doped CeO_2 Solid Solutions via Carbonate Coprecipitation: A Comparative Study. (6) 915
Abrasive Wear Behavior of Heat-Treated ABC-Silicon Carbide. (8) 1370
Fabrication of NiO Nanoparticle-Coated Lead Zirconate Titanate Powders by the Heterogeneous Precipitation Method. (9) 1631
Influence of Barium Dissolution on the Electrokinetic Properties of Colloidal $BaTiO_3$ in an Aqueous Medium. (10) 1662
Precipitation of MgO-$n$$Al_2O_3$ in Mg-Doped α-Al_2O_3 under Electron Irradiation. (1) 161

precursors
Ceramization of Reflux-Treated Polymethylsilane Precursors to Silicon Carbide. (2) 227

preparation
Preparation and Characterization of Macroporous α-Alumina. (9) 1481

processing
A Novel Processing Route to Develop a Dense Nanocrystalline Alumina Matrix (<100 nm) Nanocomposite Material. (1) 200
Ductile-Mode Material Removal of a Mica–Glass-Ceramic. (6) 1040
Effect of the Processing Parameters on the Crystalline Features of the Solid Solution $Y(Co_xMn_{1-x})O_3$, $x = 0.6, 0.7$. (1) 54
Influence of Carbon on SO_x Emissions from Glass Processing. (12) 2044
Low-Fire Processing $(Ca_{1-x}Nd_{2x/3})TiO_3$ Microwave Ceramics. (1) 93
Processing and Tribological Properties of Si_3N_4/Carbon Short Fiber Composites. (7) 1081
Processing of High-Density Submicrometer Al_2O_3 for New Applications. (4) 546

pyrochlore
Perovskite Formation and Dielectric Characteristics of $Pb(Zn_{1/3}Ta_{2/3})O_3$ with $PbTiO_3$ Substitution. (6) 929

pyrolysis
A New Aluminum Coordination Site in Si-C-Al-N-(O) Ceramics. (12) 2212
Ceramization of Reflux-Treated Polymethylsilane Precursors to Silicon Carbide. (2) 227
Fabrication of Microcellular Ceramics Using Gaseous Carbon Dioxide. (12) 2231

R-curve
Crack-Growth-Velocity-Dependent *R*-Curve Behavior in Lead Zirconate Titanate. (6) 1037
Crack-Tip Toughness of a Soft Lead Zirconate Titanate. (11) 1973

Raman spectroscopy
Raman Investigation of the Nitridation of Yttria-Stabilized Tetragonal Zirconia. (1) 169
Raman Scattering Characterization of Polytype in Silicon Carbide Ceramics: Comparison with X-ray Diffraction. (5) 823

rare earths
Fracture-Mode Change in Alumina-Silicon Carbide Composites Doped with Rare-Earth Impurities. (10) 1789
Microwave Dielectric Properties of $RE_{1-x}RE'_xTiNbO_6$ [RE=Pr, Nd, Sm; RE′=Gd, Dy, Y] Ceramics. (10) 1695
Thermal Conductivity and Thermal Expansion Coefficients of the Lanthanum Rare-Earth-Element Zirconate System. (8) 1338

reduction
Chemically Bonded Phosphate Ceramics: III. Reduction Mechanism and Its Application to Iron Phosphate Ceramics. (11) 1850
Internal Reduction of an Iron-Doped Magnesium Aluminosilicate Melt. (3) 487
Synthesis of Aluminum Nitride Nanopowder by Gas-Reduction–Nitridation Method. (6) 1046

refractories
Drying Stages during the Heating of High-Alumina, Ultra-Low-Cement Refractory Castables. (7) 1146
Synthesis of Magnesium Aluminate Spinel Platelets from α-Alumina Platelet and Magnesium Sulfate Precursors. (11) 1959
Thermal Resistance of Grain Boundaries in Alumina Ceramics and Refractories. (1) 105
Vaporization Processes and Pressure Buildup during Dewatering of Dense Refractory Castables. (9) 1500

relaxors
Single-Calcination Synthesis of Pyrochlore-Free $0.9Pb(Mg_{1/3}Nb_{2/3})O_3$–$0.1PbTiO_3$ and $Pb(Mg_{1/3}Nb_{2/3})O_3$ Ceramics Using a Coating Method. (2) 217

resistivity
Roles of Alumina in Zirconia for Functional Applications. (11) 1867

rheology/rheometry
Centrifugal Casting of Thin-Walled Ceramic Tubes from Preceramic Polymers. (7) 1211
Effect of 2-Phosphonobutane-1,2,4-tricarboxylic Acid Adsorption on the Stability and Rheological Properties of Aqueous Nanosized 3-mol%-Yttria-Stabilized Tetragonal-Zirconia Polycrystal Suspensions. (7) 1106
Interparticle Potentials in Nonaqueous Silicon Nitride Suspensions. (1) 59
Role of the Initial Degree of Ionization of Polyethylenimine in the Dispersion of Silicon Carbide Nanoparticles. (1) 189

roughness
Singular Grain Boundaries in Alumina and Their Roughening Transition. (4) 603

sapphire
Adhesion of Copper and Alumina from First Principles. (4) 696
Crystallographic-Orientation-Dependent Dissolution Behavior of Sapphire in Anorthite Liquid Containing Chromia. (6) 1014
Determination of Pipe Diffusion Coefficients in Undoped and Magnesia-Doped Sapphire (α-Al_2O_3): A Study Based on Annihilation of Dislocation Dipoles. (4) 560
Structure of Sapphire Bicrystal Boundaries Produced by Liquid-Phase Sintering. (4) 612

scandium/scandium compounds
Wet-Chemical Routes Leading to Scandia Nanopowders. (9) 1493

scanning tunneling microscopy
Initial Stages of Growth of Alumina on NiAl(001) at 1025 K. (4) 669

scattering
Transparent Alumina: A Light-Scattering Model. (3) 480

seeding
Effect of Seeding on the Microstructure and Mechanical Properties of α-SiAlON: III, Comparison of Modifying Cations. (7) 1168
Hydrothermal Synthesis of Nanosized $CoAl_2O_4$ on $ZnAl_2O_4$ Seed Crystallites. (6) 1058

Hydrothermal Synthesis of Submicrometer α-Alumina from Seeded Tetraethylammonium Hydroxide-Peptized Aluminum Hydroxide. (12) 2055

self-propagating high-temperature synthesis

Microwave-Assisted Combustion Synthesis of Tantalum Nitride in a Fluidized Bed. (2) 222

SiAlON

α-SiAlON Ceramics Obtained by Slip Casting and Pressureless Sintering. (2) 366

Effect of Seeding on the Microstructure and Mechanical Properties of α-SiAlON: III, Comparison of Modifying Cations. (7) 1168

Effect of the Amount of Additives and Post-Heat Treatment on the Microstructure and Mechanical Properties of Yttrium–α-Sialon Ceramics. (12) 2136

Electronic Structure and Bulk Properties of β-SiAlONs. (7) 1162

First-Principles Calculations of Microdomain Models for β-Sialon Si_5AlON_7. (11) 1956

Formation of β-Silicon Nitride Crystals from (Si,Al,Mg,Y)(O,N) Liquid: I, Phase, Composition, and Shape Evolutions. (9) 1578

Formation of β-Silicon Nitride Crystals from (Si,Al,Mg,Y)(O,N) Liquid: II, Population Dynamics and Coarsening Kinetics. (9) 1586

Optical and Mechanical Properties of α/β Composite Sialons. (3) 520

Scratch Damage in Ceramics: Role of Microstructure. (1) 141

Structures of Filled α-Si_3N_4-Type $Ca_{0.27}La_{0.03}Si_{11.38}Al_{0.62}N_{16}$ and $LiSi_9Al_3O_2N_{14}$. (4) 727

silica

Comment on "Densification Energy during Nanoindentation of Silica Glass". (12) 2237

Exploiting Covalency to Enhance Metal–Oxide and Oxide–Oxide Adhesion at Heterogeneous Interfaces. (3) 373

Optical Properties and London Dispersion Forces of Amorphous Silica Determined by Vacuum Ultraviolet Spectroscopy and Spectroscopic Ellipsometry. (11) 1885

Oxidation and Volatilization of Silica Formers in Water Vapor. (8) 1238

Paralinear Oxidation of Silicon Nitride in a Water-Vapor/Oxygen Environment. (8) 1256

Porous Silica Matrix Obtained from Pyrex Glass by Hydrothermal Treatment: Characterization and Nature of the Porosity. (7) 1196

Positronium Annihilation Study of Porosity in Silica Xerogels Prepared by a Sol–Gel Process. (9) 1625

Reply to "Comment on 'Densification Energy during Nanoindentation of Silica Glass'". (12) 2239

Structural, Dielectric, and Thermal Properties of Strontium Barium Niobate-Doped Fused Silica Nanocomposites. (8) 1333

Thermal Stability of a Chemically Vapor Deposited Multilayer Coating Containing Amorphous Silica and Rutile Titania on Hi-Nicalon Fiber. (10) 1797

silicates

Hydrothermal Chemistry of Silicates: Low-Temperature Synthesis of *y*-Yttrium Disilicate. (9) 1592

Structures of Filled α-Si_3N_4-Type $Ca_{0.27}La_{0.03}Si_{11.38}Al_{0.62}N_{16}$ and $LiSi_9Al_3O_2N_{14}$. (4) 727

Thermodynamic Assessment of the Miscibility Gaps and the Metastable Liquidi in the B_2O_3–RO Systems (R = Mg, Ca, Sr, and Ba). (11) 1947

Yttrium Silicate Powders Produced by the Sol–Gel Method, Structural and Thermal Characterization. (9) 1595

silicon

Fabrication and Microstructure Characterization of Ti_3SiC_2 Synthesized from Ti/Si/2TiC Powders Using the Pulse Discharge Sintering (PDS) Technique. (3) 431

Molecular Dynamics Simulations of Amorphous Si–C–N Ceramics: Composition Dependence of the Atomic Structure. (8) 1409

Powder-Based Tin Oxide Microcomponents on Silicon Substrates Fabricated by Micromolding in Capillaries. (3) 407

Roles of Alumina in Zirconia for Functional Applications. (11) 1867

Substitution of Sodium and Silicon in Tricalcium Aluminate. (1) 112

Synthesis of Al_4SiC_4. (6) 1028

silicon carbide

Abrasive Wear Behavior of Heat-Treated ABC-Silicon Carbide. (8) 1370

Ceramization of Reflux-Treated Polymethylsilane Precursors to Silicon Carbide. (2) 227

Crack-Healing Behavior of Liquid-Phase-Sintered Silicon Carbide Ceramics. (3) 465

Determining the Toughness of Ceramics from Vickers Indentations Using the Crack-Opening Displacements: An Experimental Study. (8) 1433

Dynamic Evolution of Grain-Boundary Films in Liquid-Phase-Sintered Ultrafine Silicon Carbide Material. (10) 1753

Effect of Carbon and Silicon Carbide/Carbon Interlayers on the Mechanical Behavior of Tyranno-SA-Fiber-Reinforced Silicon Carbide-Matrix Composites. (5) 851

Effect of Grain Boundaries on Thermal Conductivity of Silicon Carbide Ceramic at 5 to 1300 K. (10) 1812

Effects of High Water-Vapor Pressure on Oxidation of Silicon Carbide at 1200°C. (8) 1249

Experimental Design Applied to Silicon Carbide Sintering. (7) 1208

Fabrication of Dense Nanostructured Silicon Carbide Ceramics through Two-Step Sintering. (10) 1803

Fabrication of Silicon Carbide–Mullite Composite by Melt Infiltration. (1) 39

Formation of an Environmental Barrier Coating Using DC-RF Hybrid Plasma. (10) 1823

High-Temperature Stability of SiC-Based Composites in High-Water-Vapor-Pressure Environments. (8) 1272

Improvement in the Oxidation Resistance of Oxide-Matrix Silicon Carbide-Particulate Composites by Mullite Infiltration. (10) 1806

Interactions in the Silicon Carbide–Polyacrylic Acid–Yttrium Ion System. (1) 5

Microstructural Changes in Liquid-Phase-Sintered Silicon Carbide during Creep in an Oxidizing Environment. (3) 501

Nonequiaxial Grain Growth and Polytype Transformation of Sintered α-Silicon Carbide and β-Silicon Carbide. (12) 2222

Oxidation and Volatilization of Silica Formers in Water Vapor. (8) 1238

Porous 2H-Silicon Carbide Ceramics Fabricated by Carbothermal Reaction between Silicon Nitride and Carbon. (6) 910

Preparation of SiC/SiC Composites by Hot Pressing, Using Tyranno-SA Fiber as Reinforcement. (1) 26

Processing, Fracture Toughness, and Vickers Hardness of Allylhydridopolycarbosilane-Derived Silicon Carbide. (2) 342

Raman Scattering Characterization of Polytype in Silicon Carbide Ceramics: Comparison with X-ray Diffraction. (5) 823

Role of the Initial Degree of Ionization of Polyethylenimine in the Dispersion of Silicon Carbide Nanoparticles. (1) 189

Silicon Nitride–Silicon Carbide Nancocomposites Fabricated by Electric-Field-Assisted Sintering. (3) 526

Suppression of Active Oxidation of Polycarbosilane-Derived Silicon Carbide Fibers by Preoxidation at High Oxygen Pressure. (5) 838

Synergistic Effects of Water Vapor and Alkali Chloride Vapors on the High-Temperature Corrosion of SiC-Based Ceramics. (8) 1292

Thermal Response and Oxidation of Tyranno^{ZE}-Fiber-Reinforced Si-Ti-C-O Matrix Composites for a Thermal Protection System in High-Enthalpy Dissociated Air. (5) 830

Thermodynamic Behavior of Copper-Coated Silicon Carbide Particles during Conventional Heating and Spark Plasma Sintering. (8) 1446

Tribological Properties of Silicon Carbide and Silicon Carbide–Graphite Composite Ceramics in Sliding Contact. (6) 991

silicon carbonitride

Amorphous Silicon Carbonitride Fibers Drawn from Alkoxide Modified Ceraset™. (8) 1443

Characterization of Precursor-Derived Silicon-Carbon-Nitrogen Ceramics after Creep Testing. (9) 1598

High-Resolution Transmission Electron Microscopy Study of the Microstructural Development of a Silicon Carbonitride Nanocomposite. (5) 857

Integration of Ceramics Research with the Development of a Microsystem. (7) 1217

silicon nitride

Additive Effects on Si_3N_4 Oxidation/Volatilization in Water Vapor. (8) 1262

Atomic Resolution Transmission Electron Microscopy of the Intergranular Structure of a Y_2O_3-Containing Silicon Nitride Ceramic. (10) 1777

Effect of Bonding Pressure on Silicon Nitride Joining Using a Nickel-Chromium-Boron Metal Filler. (7) 1226

Elementary Mechanisms behind the High-Temperature Deformation Behavior of Lutetium-Doped Silicon Nitride. (3) 471

Evaluation of Mechanical Stability of a Commercial Sn88 Silicon Nitride at Intermediate Temperatures. (7) 1176

Fabrication of TiN/Si_3N_4 Ceramics by Spark Plasma Sintering of Si_3N_4 Particles Coated with Nanosized TiN Prepared by Controlled Hydrolysis of $Ti(O\text{-}i\text{-}C_3H_7)_4$. (4) 701

Formation of β-Silicon Nitride Crystals from (Si,Al,Mg,Y)(O,N) Liquid: I, Phase, Composition, and Shape Evolutions. (9) 1578

Formation of β-Silicon Nitride Crystals from (Si,Al,Mg,Y)(O,N) Liquid: II, Population Dynamics and Coarsening Kinetics. (9) 1586

Fracture Toughness of a Toughened Silicon Nitride by ASTM C 1421. (6) 1043

Gas Pressure Sintering of Silicon Nitride Powder Coated with Al_2O_3 and TiO_2. (2) 212

High-Temperature Strength of Sinter-Forged Silicon Nitride with Lutetia Additive. (8) 1430

Hot-Pressed Silicon Nitride with Lu_2O_3 Additives: Oxidation and Its Effect on Strength. (11) 1900

Interparticle Potentials in Nonaqueous Silicon Nitride Suspensions. (1) 59

Microstructure Tailoring for High Thermal Conductivity of β-Si_3N_4 Ceramics. (1) 197

Microthermal Analysis of Heat Conduction in Silicon Nitrides. (8) 1365

Molecular Dynamics Simulations of Calcium Silicate Intergranular Films between Silicon Nitride Crystals. (10) 1741

Oxidation and Volatilization of Silica Formers in Water Vapor. (8) 1238

Paralinear Oxidation of Silicon Nitride in a Water-Vapor/Oxygen Environment. (8) 1256

Pulsed Electric Current Sintering of Silicon Nitride. (3) 387

Push-Pull Fatigue of Sintered Silicon Nitride Ceramics at Elevated Temperatures. (1) 135

Silicon Nitride–Silicon Carbide Nancocomposites Fabricated by Electric-Field-Assisted Sintering. (3) 526

Strength of Silicon Nitride after Thermal Shock. (9) 1619

Structures of Filled α-Si_3N_4-Type $Ca_{0.27}La_{0.03}Si_{11.38}Al_{0.62}N_{16}$ and $LiSi_9Al_3O_2N_{14}$. (4) 727

Surface Pretreatments of Silicon Nitride for CVD Diamond Deposition. (5) 749

Texture in Silicon Nitride Seeded with Silicon Nitride Whiskers of Different Sizes. (6) 1008

Thermal Shock Behavior of Isotropic and Anisotropic Porous Silicon Nitride. (4) 738

Ultrasonic Velocity Technique for Nondestructive Quantification of Elastic Moduli Degradation during Creep in Silicon Nitride. (5) 817

Weibull Effective Volumes and Surfaces for Cylindrical Rods Loaded in Flexure. (3) 475

silicon oxycarbide

Ceramic Microtubes from Preceramic Polymers. (6) 1025

silver/silver compounds

Direct Current-Voltage Failure of Lead-Based Relaxor Ferroelectrics with Silver Doping. (11) 1856

Effect of Silver Addition on the Dielectric Properties of Barium Titanate-Based X7R Ceramics. (6) 1022

Photocatalytic Silver Recovery Using ZnO Nanopowders Synthesized by Modified Glycine-Nitrate Process. (9) 1508

simulation

Defect Structures of Tin-Doped Indium Oxide. (10) 1700

Molecular Dynamics Simulations of Amorphous Si–C–N Ceramics: Composition Dependence of the Atomic Structure. (8) 1409

Numerical Simulation of Solid-State Sintering: I, Sintering of Three Particles. (1) 49

single crystals

Auger Electron Spectroscopy Analysis of Cross-Section Surface of Oxidized Titanium Carbide Single Crystal. (12) 2116

Fabrication of Single-Crystal α-Al_2O_3 Nanorods by Displacement Reactions. (8) 1385

Influence of Excess PbO Additions on {111} Single-Crystal Growth of $Pb(Mg_{1/3}Nb_{2/3})O_3$–35 mol% $PbTiO_3$ by Seeded Polycrystal Conversion. (12) 2176

Kinetics of {001} $Pb(Mg_{1/3}Nb_{2/3})O_3$–35 mol% $PbTiO_3$ Single Crystals Grown by Seeded Polycrystal Conversion. (12) 2182

Topotaxial Formation of $Mg_4Nb_2O_9$ and $MgNb_2O_6$ Thin Films on MgO (001) Single Crystals by Vapor–Solid Reaction. (6) 1049

sinter/sintering

10-mol%-Gd_2O_3-Doped CeO_2 Solid Solutions via Carbonate Coprecipitation: A Comparative Study. (6) 915

α-SiAlON Ceramics Obtained by Slip Casting and Pressureless Sintering. (2) 366

Alternative Explanation for the Role of Magnesia in the Sintering of Alumina Containing Small Amounts of a Liquid Phase. (4) 634

Application of a Tough Surface Layer to a Fiber-Bonded Composite. (9) 1612

Bending Creep Test to Measure the Viscosity of Porous Materials during Sintering. (6) 877

Characteristics of Liquid Penetration into Undoped and Magnesia-Doped Alumina. (12) 2206

Crack-Healing Behavior of Liquid-Phase-Sintered Silicon Carbide Ceramics. (3) 465

Dynamic Evolution of Grain-Boundary Films in Liquid-Phase-Sintered Ultrafine Silicon Carbide Material. (10) 1753

Effect of Alumina Addition on the Distribution of Intergranular-Liquid Phase during Sintering of 15-mol%-Calcia-Stabilized Zirconia. (9) 1518

Effect of Rigid Inclusions on the Densification and Constitutive Parameters of Liquid-Phase-Sintered $YBa_2Cu_3O_{6+x}$ Powder Compacts. (6) 883

Enhanced Properties of Tin(IV) Oxide Based Materials by Field-Activated Sintering. (6) 893

Evolution of Average Microstructural Properties in the Final Stage Sintering of Alumina. (2) 252
Experimental Design Applied to Silicon Carbide Sintering. (7) 1208
Fabrication and Microstructure Characterization of Ti_3SiC_2 Synthesized from Ti/Si/2TiC Powders Using the Pulse Discharge Sintering (PDS) Technique. (3) 431
Fabrication of Dense Nanostructured Silicon Carbide Ceramics through Two-Step Sintering. (10) 1803
Fabrication of TiN/Si_3N_4 Ceramics by Spark Plasma Sintering of Si_3N_4 Particles Coated with Nanosized TiN Prepared by Controlled Hydrolysis of $Ti(O\text{-}i\text{-}C_3H_7)_4$. (4) 701
Gas Pressure Sintering of Silicon Nitride Powder Coated with Al_2O_3 and TiO_2. (2) 212
High-Temperature Strength of Sinter-Forged Silicon Nitride with Lutetia Additive. (8) 1430
Microstructural Changes in Liquid-Phase-Sintered Silicon Carbide during Creep in an Oxidizing Environment. (3) 501
Nanocrystalline Aluminum Nitride: II, Sintering and Properties. (7) 1121
Numerical Simulation of Solid-State Sintering: I, Sintering of Three Particles. (1) 49
Pressureless Sintering of Boron Carbide. (9) 1468
Pulsed Electric Current Sintering of Silicon Nitride. (3) 387
Push-Pull Fatigue of Sintered Silicon Nitride Ceramics at Elevated Temperatures. (1) 135
Quantitative Analysis of Zinc Vaporization from Manganese Zinc Ferrites. (5) 765
Role of Vanadium Carbide Additive during Sintering of WC–Co: Mechanism of Grain Growth Inhibition. (1) 152
Silicon Nitride–Silicon Carbide Nancocomposites Fabricated by Electric-Field-Assisted Sintering. (3) 526
Structure of Sapphire Bicrystal Boundaries Produced by Liquid-Phase Sintering. (4) 612

slags
Characterization by Multinuclear High-Resolution NMR of Hydration Products in Activated Blast-Furnace Slag Pastes. (10) 1712
Hydration Products and Reactivity of Blast-Furnace Slag Activated by Various Alkalis. (12) 2148
Structure of Calcium Silicate Hydrates Formed in Alkaline-Activated Slag: Influence of the Type of Alkaline Activator. (8) 1389

slip casting
α-SiAlON Ceramics Obtained by Slip Casting and Pressureless Sintering. (2) 366
Effect of Oligosaccharide Alcohol Addition to Alumina Slurry and Translucent Alumina Produced by Slip Casting. (5) 755

slurries
Effect of Oligosaccharide Alcohol Addition to Alumina Slurry and Translucent Alumina Produced by Slip Casting. (5) 755

soda-lime-silica
Influence of the Manufacturing Process on Corrosion Behavior of Soda-Lime-Silicate Glassware. (10) 1669
Radiation Characteristics of Glass Containing Gas Bubbles. (8) 1313

sodium oxide
Sulfate Decomposition and Sodium Oxide Activity in Soda–Lime–Silica Glass Melts. (11) 1893

sodium/sodium compounds
Substitution of Sodium and Silicon in Tricalcium Aluminate. (1) 112

sol-gel
Bioactivity and Mechanical Properties of Poly(dimethylsiloxane)-Modified Calcia–Silica Hybrids with Added Titania. (5) 806
Hydrothermal Synthesis of Bismuth Titanate Powders. (10) 1815
Nanostructured Silicon Oxide–Nickel Oxide Sol–Gel Films with Enhanced Optical Carbon Monoxide Gas Sensitivity. (9) 1638
Properties of Lead Zirconate Titanate Thin Films Prepared Using a Triol Sol–Gel Route. (9) 1560
Proton Conductivity in Zr^{3+}-Ion-Doped P_2O_5–SiO_2 Porous Glasses. (9) 1504
Sol–Gel Synthesis of λ-Na_2O·xAl_2O_3 Films. (11) 1965
Synthesis and Characterization of Lead Zirconate Titanate Fibers Prepared by the Sol–Gel Method: The Role of the Acid. (5) 775
Synthesis of Bismuth Sodium Titanate Nanosized Powders by Solution/Sol–Gel Process. (9) 1464
Synthesis of Hydroxyapatite Nanopowders via Sucrose-Templated Sol–Gel Method. (6) 1055

solid oxide fuel cell
Development of Solid Oxide Fuel Cell Anodes Using Metal-Coated Pore-Forming Agents. (3) 401
Novel Compressive Mica Seals with Metallic Interlayers for Solid Oxide Fuel Cell Applications. (6) 1003
Phase Composition and Vaporization Study of $LaGa_{1-x}Al_xO_3$, $0 \le x \le 1$, and $La_{0.9}Sr_{0.1}Ga_{0.8-x}Al_xMg_{0.2}O_{2.85}$, x = 0.1, 0.2, 0.3. (11) 1911
Synthesis of Highly Porous Yttria-Stabilized Zirconia by Tape-Casting Methods. (3) 395

solid solutions
Fractional Crystallization of Liquid Coexisting with α-Ca_2SiO_4 Solid Solution in the CaO–SiO_2–Al_2O_3–Fe_2O_3 Pseudoquaternary System. (12) 2154
Oxygen Storage Capacity, Specific Surface Area, and Pore-Size Distribution of Ceria–Zirconia Solid Solutions Directly Formed by Thermal Hydrolysis. (12) 2209
Residual Stress Distributions in the Solid Solution Eutectic, $Co_{1-x}Ni_xO/ZrO_2$(CaO). (12) 2188
Titanium Diboride–Tungsten Diboride Solid Solutions Formed by Induction-Field-Activated Combustion Synthesis. (4) 706

solubility
Evidence of Bilevel Solubility in the Bimodal Microstructure of TiO_2-Doped Alumina. (11) 1953

solvent/solutions
Comparison of Various Solvent Media Efficiency in the Grinding of a Frit Containing Zirconium Oxide. (5) 864

sol–gel
Fine Patterning of Hybrid Titania Films by Ultraviolet Irradiation. (5) 761
Stabilization of Poly(vinylpyrrolidone)-containing Alkoxide Solutions for Thick Sol–Gel Barium Titanate Films. (1) 33
Synthesis of (Pb,La)(Zr,Ti)O_3 Inverse Opal Photonic Crystals. (5) 867
Yttrium Silicate Powders Produced by the Sol–Gel Method, Structural and Thermal Characterization. (9) 1595

spalling
Elimination of Surface Spallation of Alumina Green Bodies Prepared by Acrylamide-Based Gelcasting via Poly(vinylpyrrolidone). (2) 266

spark plasma sintering
Preparation of Dense MgB_2 Bulk Superconductors by Spark Plasma Sintering. (10) 1800
Spark Plasma Sintering of Nano-Sized TiN Prepared from TiO_2 by Controlled Hydrolysis of $TiCl_4$ and $Ti(O\text{-}i\text{-}C_3H_7)_4$ Solution. (9) 1609
Thermodynamic Behavior of Copper-Coated Silicon Carbide Particles during Conventional Heating and Spark Plasma Sintering. (8) 1446

spinels
Quaternary System Al_2O_3–CaO–MgO–SiO_2: I, Study of the Crystallization Volume of Al_2O_3. (12) 2195
Reactive Synthesis of a Porous Calcium Zirconate/Spinel Composite with Idiomorphic Spinel Grains. (7) 1128
Synthesis of Magnesium Aluminate Spinel Platelets from α-Alumina Platelet and Magnesium Sulfate Precursors. (11) 1959
Synthesis of Zinc Aluminate Spinel Film through the Solid-Phase Reaction between Zinc Oxide Film and α-Alumina Substrate. (12) 2059

spray pyrolysis
Bulk, Dense, Nanocrystalline Yttrium Aluminum Garnet by Consolidation of Amorphous Powders at Low Temperatures and High Pressures. (2) 247
Formation of Lead Zirconate Titanate Powders by Spray Pyrolysis. (9) 1474

stability
Fractional Crystallization of Liquid Coexisting with α-Ca_2SiO_4 Solid Solution in the CaO–SiO_2–Al_2O_3–Fe_2O_3 Pseudoquaternary System. (12) 2154
Heavy Metals Bioremediation from Polluted Water by Glass-Ceramic Materials. (12) 2200
Homogeneity Region of Strontium- and Magnesium-Containing $LaGaO_3$ at Temperatures between 1100° and 1500°C in Air. (11) 1940
Properties of Aqueous Bismuth Titanate Suspensions Stabilized by Acrylic Acid/Acrylic Ester Copolymer. (12) 2203

stacking fault
Dislocation Structures of Low-Angle and Near-Σ3 Grain Boundaries in Alumina Bicrystals. (4) 595

strain
Ultrasonic Velocity Technique for Nondestructive Quantification of Elastic Moduli Degradation during Creep in Silicon Nitride. (5) 817

strength
Effect of Microstructure on Dynamic Failure Resistance of Titanium Diboride/Alumina Ceramics. (3) 449
Failure Prediction Maps for a Model Al_2O_3|c-ZrO_2/Al_2O_3|Al_2O_3 Brittle Polycrystalline Trilayer Composite. (1) 121
High-Temperature Strength of Sinter-Forged Silicon Nitride with Lutetia Additive. (8) 1430
Tensile Strength and Deformation of a Two-Dimensional Carbon–Carbon Composite at Elevated Temperatures. (12) 2129
Variable-Temperature Ion-Exchanged Engineered Stress Profile (ESP) Glasses. (11) 1979
Weibull Strength Scaling for Standardized Rectangular Flexure Specimens. (3) 508

stress
Influence of Residual Stresses on the Wear Behavior of Alumina/Alumina–Zirconia Laminated Composites. (9) 1547
Measurement of Internal Stress in Glass Articles. (8) 1353
Multiaxial Deformation Behavior of PZT from Torsion Tests. (8) 1427
Nanoindentation Method for Measuring Residual Stress in Brittle Materials. (5) 811
Residual Stress Distributions in the Solid Solution Eutectic, $Co_{1-x}Ni_xO/ZrO_2$(CaO). (12) 2188
Variable-Temperature Ion-Exchanged Engineered Stress Profile (ESP) Glasses. (11) 1979

strontium
Aqueous Combustion Synthesis of Strontium-Doped Lanthanum Chromite Ceramics. (7) 1149
Flextensional Barium Strontium Titanate Actuators. (6) 934

strontium barium niobate
Structural, Dielectric, and Thermal Properties of Strontium Barium Niobate-Doped Fused Silica Nanocomposites. (8) 1333

strontium titanate
Electrical and Structural Characterization of a Low-Angle Tilt Grain Boundary in Iron-Doped Strontium Titanate. (6) 922
Processing of Novel Strontium Titanate-Based Thin-Film Varistors by Chemical Solution Deposition. (1) 99
Structure Sensitivity of Photochemical Oxidation and Reduction Reactions on $SrTiO_3$ Surfaces. (7) 1182
Surface Energy Anisotropy of $SrTiO_3$ at 1400°C in Air. (11) 1933

structure
Atomic Force and Ultrasonic Force Microscopic Investigation of Laser-Treated Ceramic Head Sliders. (12) 2122
Atomic Resolution Transmission Electron Microscopy of the Intergranular Structure of a Y_2O_3-Containing Silicon Nitride Ceramic. (10) 1777
Energy-Filtering Transmission Electron Microscopy (EF-TEM) Study of a Modulated Structure in Metakaolinite, Represented by a 14 Å Modulation. (1) 174
Local Structure of Sodium Aluminum Metaphosphate Glasses. (2) 317
Rim Structure in Ti($C_{0.7}N_{0.3}$)–WC–Ni Cermets. (10) 1761
Spectroscopic Properties and Local Structure of Eu^{3+} in Ge–Ga–S–CsBr (or CsCl) Glasses. (2) 286
Structure and Chemistry of Symmetrical Tilt Grain Boundaries in α-Al_2O_3: I, Bicrystals with "Clean" Interface. (4) 581
Structure and Chemistry of Symmetrical Tilt Grain Boundaries in α-Al_2O_3: II, Bicrystals with Y at the Interface. (4) 590
Structure and Microwave Dielectric Properties of $(Zn_{1-x}Co_x)TiO_3$ Ceramics. (11) 1874
Structure of Calcium Silicate Hydrates Formed in Alkaline-Activated Slag: Influence of the Type of Alkaline Activator. (8) 1389
Structure Sensitivity of Photochemical Oxidation and Reduction Reactions on $SrTiO_3$ Surfaces. (7) 1182

substitution
Independent Effects of Nitrogen Substitution for Oxygen and Yttrium Substitution for Magnesium on the Properties of Mg-Y-Si-Al-O-N Glasses. (3) 458
Low-Thermal-Expansion Properties of Sodium- and Lithium-Substituted Cubic Cesium Leucite Compounds. (8) 1360

substrates
Formation of Titania Submicrometer Patterns by the Combination of Synthesis from an Aqueous Solution and Transcription of a Resist Pattern. (11) 1976
Two-Layer Crystallization of Amorphous $YMnO_3$ Thin Films on Si (100) Substrates. (1) 149

superconductors
Kinetics and Mechanism of Formation of Barium Zirconate from Barium Carbonate and Zirconia Powders. (1) 19
Preparation of Dense MgB_2 Bulk Superconductors by Spark Plasma Sintering. (10) 1800
Synthesis and Characterization of Nanocrystalline Niobium Nitride Powders. (7) 1205

surface
Barium Carbonate Phase on the Surfaces of Barium Titanate Particles and *in Situ* Transmission Electron Microscopy Observation of Its Decomposition. (4) 741
Influence of [Ba + Ca]/[Ti + Zr] Ratio on the Interfacial Property of (Ba,Ca)(Ti,Zr)O_3 (BCTZ) Powders in an Aqueous Medium. (6) 1034

surface area
Synthesizing and Comparing the Photocatalytic Properties of High Surface Area Rutile and Anatase Titania Nanoparticles. (10) 1677

surfactants
Preparation of Highly Dispersed Ultrafine Barium Titanate Powder by Using Microbial-Derived Surfactant. (12) 2011

suspensions
Effect of 2-Phosphonobutane-1,2,4-tricarboxylic Acid Adsorption on the Stability and Rheological Properties of Aqueous Nanosized 3-mol%-Yttria-Stabilized Tetragonal-Zirconia Polycrystal Suspensions. (7) 1106
Interparticle Potentials in Nonaqueous Silicon Nitride Suspensions. (1) 59

Properties of Aqueous Bismuth Titanate Suspensions Stabilized by Acrylic Acid/Acrylic Ester Copolymer. (12) 2203

synthesis
A New Glycothermal Process for Barium Titanate Nanoparticle Synthesis. (10) 1793
Carbothermal Synthesis of Boron Nitride Coatings on Silicon Carbide. (11) 1830
Hydrothermal Chemistry of Silicates: Low-Temperature Synthesis of y-Yttrium Disilicate. (9) 1592
Hydrothermal Synthesis of Bismuth Titanate Powders. (10) 1815
Hydrothermal Synthesis of Nanosized $CoAl_2O_4$ on $ZnAl_2O_4$ Seed Crystallites. (6) 1058
Hydrothermal Synthesis of Submicrometer α-Alumina from Seeded Tetraethylammonium Hydroxide-Peptized Aluminum Hydroxide. (12) 2055
Hydrothermal Synthesis of Thin Films of Barium Titanate Ceramic Nano-tubes at 200°C. (12) 2215
Kinetics and Mechanism of Formation of Barium Zirconate from Barium Carbonate and Zirconia Powders. (1) 19
Low-Temperature Synthesis of Nanocrystalline Yttrium Aluminum Garnet Powder Using Triethanolamine. (10) 1651
Nanocrystalline Aluminum Nitride: I, Vapor-Phase Synthesis in a Forced-Flow Reactor. (7) 1114
Novel Way to Synthesize Nanocrystalline Aluminum Nitride from Coarse Aluminum Powder. (7) 1214
Optimization of Praseodymium-Doped Cerium Pigment Synthesis Temperature. (3) 425
Performance of Alumina Membranes from New Nanosynthesis in Ultrafiltration and Nanofiltration. (2) 241
Photocatalytic Silver Recovery Using ZnO Nanopowders Synthesized by Modified Glycine-Nitrate Process. (9) 1508
Reaction Synthesis of Magnesium Silicon Nitride Powder. (7) 1088
Reactive Synthesis of a Porous Calcium Zirconate/Spinel Composite with Idiomorphic Spinel Grains. (7) 1128
Reduction–Nitridation Synthesis of Titanium Nitride Nanocrystals. (1) 206
Subsolidus Phase Relationships in the System Fe_2O_3–Al_2O_3–TiO_2 between 1000° and 1300°C. (6) 975
Synthesis of Al_4SiC_4. (6) 1028
Synthesis of Magnesium Aluminate Spinel Platelets from α-Alumina Platelet and Magnesium Sulfate Precursors. (11) 1959
Synthesis of Niobium(V)-Stabilized Tetragonal Zirconia Nanocrystalline Powders. (3) 514
Synthesis of Zinc Aluminate Spinel Film through the Solid-Phase Reaction between Zinc Oxide Film and α-Alumina Substrate. (12) 2059

tantalum/tantalum compounds
Microwave-Assisted Combustion Synthesis of Tantalum Nitride in a Fluidized Bed. (2) 222
Perovskite Formation and Dielectric Characteristics of $Pb(Zn_{1/3}Ta_{2/3})O_3$ with $PbTiO_3$ Substitution. (6) 929

tape casting
Mullite–Aluminum Phosphate Laminated Composite Fabricated by Tape Casting. (11) 1962

temperature
Chemically Bonded Phosphate Ceramics: II, Warm-Temperature Process for Alumina Ceramics. (11) 1845
Evaluation of Mechanical Stability of a Commercial Sn88 Silicon Nitride at Intermediate Temperatures. (7) 1176
Homogeneity Region of Strontium- and Magnesium-Containing $LaGaO_3$ at Temperatures between 1100° and 1500°C in Air. (11) 1940

tensile
Tensile Strength and Deformation of a Two-Dimensional Carbon–Carbon Composite at Elevated Temperatures. (12) 2129

testing
Weibull Strength Scaling for Standardized Rectangular Flexure Specimens. (3) 508

tetraethoxysilane
Bioactivity and Mechanical Properties of Poly(dimethylsiloxane)-Modified Calcia–Silica Hybrids with Added Titania. (5) 806

texture
Evolution of Texture in Rhabdophane-Derived Monazite Coatings. (10) 1767
Reactive-Templated Grain Growth of $Bi_{1/2}(Na,K)_{1/2}TiO_3$: Effects of Formulation on Texture Development. (7) 1132
Texture Development in Modified Lead Titanate Thin Films Obtained by Chemical Solution Deposition on Silicon-Based Substrates. (9) 1571
Texture in Silicon Nitride Seeded with Silicon Nitride Whiskers of Different Sizes. (6) 1008

thermal analysis
Microthermal Analysis of Heat Conduction in Silicon Nitrides. (8) 1365

thermal conductivity
Effect of Grain Boundaries on Thermal Conductivity of Silicon Carbide Ceramic at 5 to 1300 K. (10) 1812
Microstructure Tailoring for High Thermal Conductivity of β-Si_3N_4 Ceramics. (1) 197

thermal expansion
Low-Thermal-Expansion Properties of Sodium- and Lithium-Substituted Cubic Cesium Leucite Compounds. (8) 1360

thermal properties
Effect of Microstructural Control on Thermoelectric Properties of Hot-Pressed Aluminum-Doped Zinc Oxide. (12) 2063
Thermal Conductivity and Thermal Expansion Coefficients of the Lanthanum Rare-Earth-Element Zirconate System. (8) 1338
Thermal Resistance of Grain Boundaries in Alumina Ceramics and Refractories. (1) 105

thermal shock/thermal shock resistance
Influence of a Dispersion of Aluminum Titanate Particles of Controlled Size on the Thermal Shock Resistance of Alumina. (5) 846
Strength of Silicon Nitride after Thermal Shock. (9) 1619
Thermal Shock Behavior of Isotropic and Anisotropic Porous Silicon Nitride. (4) 738

thermal treatment
Fully Dense, Fine-Grained, Doped Zinc Oxide Varistors with Improved Nonlinear Properties by Thermal Processing Optimization. (8) 1326
Porous Silica Matrix Obtained from Pyrex Glass by Hydrothermal Treatment: Characterization and Nature of the Porosity. (7) 1196

thermodynamics
Thermochemistry of Glasses in the Y_2O_3–Al_2O_3–SiO_2 System. (10) 1727

thick films
Thermal, Dielectric, and Optical Properties of Neodymium Borosilicate Glasses for Thick Films. (7) 1202

thin films
Chemical Solution Deposition of Columnar-Grained Metallic Lanthanum Nitrate Thin Films. (10) 1786
Formation of Titania Submicrometer Patterns by the Combination of Synthesis from an Aqueous Solution and Transcription of a Resist Pattern. (11) 1976
Hydrothermal Synthesis of Thin Films of Barium Titanate Ceramic Nano-tubes at 200°C. (12) 2215
Initial Stages of Growth of Alumina on NiAl(001) at 1025 K. (4) 669
Interface Structure of an Epitaxial Cubic Ceria Film on Cubic Zirconia. (2) 363
Lead Zirconate Titanate Thin Films by Aerosol Plasma Deposition: Microstructure Analysis. (12) 2167
Nanocrystalline Tin Oxide Thin Films via Liquid Flow Deposition. (12) 2074
Nanostructured Silicon Oxide–Nickel Oxide Sol–Gel Films with Enhanced Optical Carbon Monoxide Gas Sensitivity. (9) 1638
Processing of Novel Strontium Titanate-Based Thin-Film Varistors by Chemical Solution Deposition. (1) 99
Properties of Lead Zirconate Titanate Thin Films Prepared Using a Triol Sol–Gel Route. (9) 1560
Sol–Gel Synthesis of λ-Na_2O·xAl_2O_3 Films. (11) 1965
Texture Development in Modified Lead Titanate Thin Films Obtained by Chemical Solution Deposition on Silicon-Based Substrates. (9) 1571
Topotaxial Formation of $Mg_4Nb_2O_9$ and $MgNb_2O_6$ Thin Films on MgO (001) Single Crystals by Vapor–Solid Reaction. (6) 1049

tin/tin compounds
Defect Cluster Aggregation and Nonreducibility in Tin-Doped Indium Oxide. (10) 1707
Defect Structures of Tin-Doped Indium Oxide. (10) 1700
Enhanced Properties of Tin(IV) Oxide Based Materials by Field-Activated Sintering. (6) 893
Nanocrystalline Tin Oxide Thin Films via Liquid Flow Deposition. (12) 2074
Powder-Based Tin Oxide Microcomponents on Silicon Substrates Fabricated by Micromolding in Capillaries. (3) 407
Preparation of a Translucent, Conductive, Porous Nanocomposite. (11) 1991

titanates
Flextensional Barium Strontium Titanate Actuators. (6) 934
Structure and Microwave Dielectric Properties of $(Zn_{1-x}Co_x)TiO_3$ Ceramics. (11) 1874

titanium
Fabrication and Microstructure Characterization of Ti_3SiC_2 Synthesized from Ti/Si/2TiC Powders Using the Pulse Discharge Sintering (PDS) Technique. (3) 431
Joining of Calcium Phosphate Invert Glass-Ceramics on a β-Type Titanium Alloy. (6) 1031
Simultaneous Synthesis and Densification of Titanium Oxycarbide, Ti(C,O), through Gas–Solid Combustion. (12) 2067
Synthesizing and Comparing the Photocatalytic Properties of High Surface Area Rutile and Anatase Titania Nanoparticles. (10) 1677

titanium boride
Effect of Ni and Co Additives on Phase Decomposition in TiB_2–WB_2 Solid Solutions Formed by Induction Field Activated Combustion Synthesis. (2) 354

titanium carbide
Auger Electron Spectroscopy Analysis of Cross-Section Surface of Oxidized Titanium Carbide Single Crystal. (12) 2116
Phase Formation and Microstructure of Titanium Oxides and Composites Produced by Thermal Plasma Oxidation of Titanium Carbide. (9) 1456

titanium diboride
Effect of Microstructure on Dynamic Failure Resistance of Titanium Diboride/Alumina Ceramics. (3) 449
Titanium Diboride–Tungsten Diboride Solid Solutions Formed by Induction-Field-Activated Combustion Synthesis. (4) 706

titanium dioxide
Formation of Titania Submicrometer Patterns by the Combination of Synthesis from an Aqueous Solution and Transcription of a Resist Pattern. (11) 1976
Phase Formation and Microstructure of Titanium Oxides and Composites Produced by Thermal Plasma Oxidation of Titanium Carbide. (9) 1456
Photocatalytic Activity of Monodispersed Spherical TiO_2 Particles with Different Crystallization Routes. (7) 1138
Thermal Stability of a Chemically Vapor Deposited Multilayer Coating Containing Amorphous Silica and Rutile Titania on Hi-Nicalon Fiber. (10) 1797

titanium nitride
Fabrication of TiN/Si_3N_4 Ceramics by Spark Plasma Sintering of Si_3N_4 Particles Coated with Nanosized TiN Prepared by Controlled Hydrolysis of $Ti(O\text{-}i\text{-}C_3H_7)_4$. (4) 701
Preparation of Titanium Nitride Films from Amide Precursors Synthesized by Electrolysis. (1) 177
Reduction–Nitridation Synthesis of Titanium Nitride Nanocrystals. (1) 206
Spark Plasma Sintering of Nano-Sized TiN Prepared from TiO_2 by Controlled Hydrolysis of $TiCl_4$ and $Ti(O\text{-}i\text{-}C_3H_7)_4$ Solution. (9) 1609

toughness
Crack-Tip Toughness of a Soft Lead Zirconate Titanate. (11) 1973
Fracture Toughness of a Toughened Silicon Nitride by ASTM C 1421. (6) 1043
Toughening of Glass by a Piezoelectric Secondary Phase. (1) 180

transformation toughening
Slow-Crack-Growth Behavior of Zirconia-Toughened Alumina Ceramics Processed by Different Methods. (1) 115

transitions
Calorimetric Study of Nickel Molybdate: Heat Capacity, Enthalpy; Gibbs Energy of Formation. (11) 1927
Nonequiaxial Grain Growth and Polytype Transformation of Sintered α-Silicon Carbide and β-Silicon Carbide. (12) 2222

transmission electron microscopy
Atomic Resolution Transmission Electron Microscopy of the Intergranular Structure of a Y_2O_3-Containing Silicon Nitride Ceramic. (10) 1777
Barium Carbonate Phase on the Surfaces of Barium Titanate Particles and *in Situ* Transmission Electron Microscopy Observation of its Decomposition. (4) 741
Energy-Filtering Transmission Electron Microscopy (EF-TEM) Study of a Modulated Structure in Metakaolinite, Represented by a 14 Å Modulation. (1) 174
High-Resolution Transmission Electron Microscopy Study of the Microstructural Development of a Silicon Carbonitride Nanocomposite. (5) 857
Transmission Electron Microscopy Investigation of $Pt/Ba_{0.7}Sr_{0.3}TiO_3/Pt$ Capacitors with Different Annealing Processes. (7) 1190

tungsten/tungsten compounds
Rim Structure in $Ti(C_{0.7}N_{0.3})$–WC–Ni Cermets. (10) 1761
Role of Vanadium Carbide Additive during Sintering of WC–Co: Mechanism of Grain Growth Inhibition. (1) 152
Titanium Diboride–Tungsten Diboride Solid Solutions Formed by Induction-Field-Activated Combustion Synthesis. (4) 706

twinning
{111} Twin Formation and Abnormal Grain Growth in Barium Strontium Titanate. (1) 155
Slip and Twinning in Polycrystalline Alumina (α-Al_2O_3) Deformed under Hydrostatic Pressure between 600° and 1000°C. (4) 566

uranium/uranium compounds
Pu, U, and Hf Incorporation in Gd Silicate Apatite. (7) 1223

vacancies
Blocking Grain Boundaries in Yttria-Doped and Undoped Ceria Ceramics of High Purity. (1) 77

vanadium/vanadium compounds
Anatase Sol Prepared from Peroxotitanium Complex Aqueous Solution Containing Niobium or Vanadium. (9) 1605

vaporization
Phase Composition and Vaporization Study of $LaGa_{1-x}Al_xO_3$, $0 \le x \le 1$, and $La_{0.9}Sr_{0.1}Ga_{0.8-x}Al_xMg_{0.2}O_{2.85}$, $x = 0.1, 0.2, 0.3$. (11) 1911

Quantitative Analysis of Zinc Vaporization from Manganese Zinc Ferrites. (5) 765
Vaporization Processes and Pressure Buildup during Dewatering of Dense Refractory Castables. (9) 1500

varistors
Current–Voltage Characteristics of Cobalt-Doped Inversion Boundaries in Zinc Oxide Bicrystals. (9) 1616
Fully Dense, Fine-Grained, Doped Zinc Oxide Varistors with Improved Nonlinear Properties by Thermal Processing Optimization. (8) 1326
Processing of Novel Strontium Titanate-Based Thin-Film Varistors by Chemical Solution Deposition. (1) 99

viscosity
Properties of Nitrogen-Containing Yttria–Alumina–Silica Melts and Glasses. (4) 711

water
Additive Effects on Si_3N_4 Oxidation/Volatilization in Water Vapor. (8) 1262
Combined Spectroscopic and Thermodynamic Investigation of Nextel-720 Fiber/Alumina Ceramic-Matrix Composite in Air and Water Vapor at 1100°C. (9) 1628
Consequence of Intermittent Exposure to Moisture and Salt Fog on the High-Temperature Fatigue Durability of Several Ceramic-Matrix Composites. (8) 1282
Effects of High Water-Vapor Pressure on Oxidation of Silicon Carbide at 1200°C. (8) 1249
Formation of an Environmental Barrier Coating Using DC-RF Hybrid Plasma. (10) 1823
Heavy Metals Bioremediation from Polluted Water by Glass-Ceramic Materials. (12) 2200
High-Temperature Stability of SiC-Based Composites in High-Water-Vapor-Pressure Environments. (8) 1272
Influence of Moisture on Ultra-High-Temperature Tensile Creep Behavior of *in Situ* Single-Crystal Oxide Ceramic Alumina/Yttrium Aluminum Garnet Eutectic Composite. (6) 951
Oxidation and Volatilization of Silica Formers in Water Vapor. (8) 1238
Paralinear Oxidation of Silicon Nitride in a Water-Vapor/Oxygen Environment. (8) 1256
Synergistic Effects of Water Vapor and Alkali Chloride Vapors on the High-Temperature Corrosion of SiC-Based Ceramics. (8) 1292

wear/wear resistance
Abrasive Wear Behavior of Heat-Treated ABC-Silicon Carbide. (8) 1370
Influence of Residual Stresses on the Wear Behavior of Alumina/Alumina–Zirconia Laminated Composites. (9) 1547

Weibull statistics
Weibull Effective Volumes and Surfaces for Cylindrical Rods Loaded in Flexure. (3) 475
Weibull Strength Scaling for Standardized Rectangular Flexure Specimens. (3) 508

wetting
Wet-Chemical Routes Leading to Scandia Nanopowders. (9) 1493

whiskers
Crack-Healing Behavior of Al_2O_3 Toughened by SiC Whiskers. (12) 2143
Method for Production of α-Alumina Whiskers via Vapor–Liquid–Solid Deposition. (10) 1683
Texture in Silicon Nitride Seeded with Silicon Nitride Whiskers of Different Sizes. (6) 1008

X-ray methods
Raman Scattering Characterization of Polytype in Silicon Carbide Ceramics: Comparison with X-ray Diffraction. (5) 823
Transformation Mechanism of the Dehydration of Diaspore. (4) 534

xerogels
Positronium Annihilation Study of Porosity in Silica Xerogels Prepared by a Sol–Gel Process. (9) 1625

yttria
Abnormal Grain Growth in Alumina: Synergistic Effects of Yttria and Silica. (4) 650
Kinetic Study of Amorphous Yttria–Alumina Fibers Using Differential Thermal Analysis. (1) 43

yttrium aluminum garnet
Bulk, Dense, Nanocrystalline Yttrium Aluminum Garnet by Consolidation of Amorphous Powders at Low Temperatures and High Pressures. (2) 247
Grain Boundary Grooving Studies of Yttrium Aluminum Garnet (YAG) Bicrystals. (5) 870
Influence of Moisture on Ultra-High-Temperature Tensile Creep Behavior of *in Situ* Single-Crystal Oxide Ceramic Alumina/Yttrium Aluminum Garnet Eutectic Composite. (6) 951
Low-Temperature Synthesis of Nanocrystalline Yttrium Aluminum Garnet Powder Using Triethanolamine. (10) 1651

yttrium barium copper oxide
Effect of Rigid Inclusions on the Densification and Constitutive Parameters of Liquid-Phase-Sintered $YBa_2Cu_3O_{6+x}$ Powder Compacts. (6) 883

yttrium/yttrium compounds
Effect of the Processing Parameters on the Crystalline Features of the Solid Solution $Y(Co_xMn_{1-x})O_3$, $x = 0.6, 0.7$. (1) 54
Effect of Yttrium and Erbium Ions on Epitaxial Phase Transformations in Alumina. (4) 541
Interactions in the Silicon Carbide–Polyacrylic Acid–Yttrium Ion System. (1) 5
Reel-to-Reel Continuous Chemical Solution Deposition of Epitaxial Gd_2O_3 Buffer Layers on Biaxially Textured Metal Tapes for the Fabrication of $YBa_2Cu_3O_{7-\delta}$ Coated Conductors. (2) 257

zeolites
Zeolite Synthesized by Alkaline Hydrothermal Treatment of Bottom Ash from Combustion of Municipal Solid Wastes. (9) 1527

zinc oxide
Current–Voltage Characteristics of Cobalt-Doped Inversion Boundaries in Zinc Oxide Bicrystals. (9) 1616
Effect of Microstructural Control on Thermoelectric Properties of Hot-Pressed Aluminum-Doped Zinc Oxide. (12) 2063
Fully Dense, Fine-Grained, Doped Zinc Oxide Varistors with Improved Nonlinear Properties by Thermal Processing Optimization. (8) 1326
Grain Growth Control in Sb_2O_3-Doped Zinc Oxide. (8) 1379
Influence of pH and Ionic Impurities on the Adsorption of Poly(acrylic) Dispersant onto a Zinc Oxide Surface. (12) 2001
Photocatalytic Silver Recovery Using ZnO Nanopowders Synthesized by Modified Glycine-Nitrate Process. (9) 1508
Quantitative Analysis of Zinc Vaporization from Manganese Zinc Ferrites. (5) 765
Synthesis of Zinc Aluminate Spinel Film through the Solid-Phase Reaction between Zinc Oxide Film and α-Alumina Substrate. (12) 2059

zirconia
Effect of Precursor and Solvent on Morphology of Zirconia Nanoparticles Produced by Combustion Aerosol Synthesis. (2) 273
Effects of Oxygen Partial Pressure on the Nucleation Behavior and Morphology of Chemically-Vapor-Deposited Zirconia on Hi-Nicalon Fiber and Si. (12) 2031
Electroless Copper Coating of Zirconia Utilizing Palladium Catalyst. (2) 279
Increase in Phase Transition Temperature of Activated Alumina with Nano-Zirconia Synthesized by Pulsed Wire Discharge. (9) 1522
Interface Structure of an Epitaxial Cubic Ceria Film on Cubic Zirconia. (2) 363
Low-Temperature Processing and Mechanical Properties of Zirconia and Zirconia–Alumina Nanoceramics. (2) 299
Microstructural Evolution and Microhardness in Zirconia-Based EB-PVD Thermal Barrier Coatings. (6) 959
Oxygen Storage Capacity, Specific Surface Area, and Pore-Size Distribution of Ceria–Zirconia Solid Solutions Directly Formed by Thermal Hydrolysis. (12) 2209
Pressureless Sintering and Mechanical and Biological Properties of Fluor-hydroxyapatite Composites with Zirconia. (12) 2019
Roles of Alumina in Zirconia for Functional Applications. (11) 1867
Synthesis of Highly Porous Yttria-Stabilized Zirconia by Tape-Casting Methods. (3) 395
Synthesis of Niobium(V)-Stabilized Tetragonal Zirconia Nanocrystalline Powders. (3) 514

zirconia-toughened alumina
Slow-Crack-Growth Behavior of Zirconia-Toughened Alumina Ceramics Processed by Different Methods. (1) 115

zirconia: partially stabilized
Effect of Alumina Addition on the Distribution of Intergranular-Liquid Phase during Sintering of 15-mol%-Calcia-Stabilized Zirconia. (9) 1518
Grinding Temperature Measurements in Magnesia-Partially-Stabilized Zirconia Using Infrared Spectrometry. (2) 333

zirconia: tetragonal polycrystals
Macrochanneled Tetragonal Zirconia Polycrystals Coated by a Calcium Phosphate Layer. (12) 2027

zirconia: yttria stabilized
Changes in Aging Behavior and Defect Structure of Yttria-Fully-Stabilized ZrO_2 with Sc_2O_3 Doping. (12) 2093
Crystallite and Grain-Size-Dependent Phase Transformations in Yttria-Doped Zirconia. (2) 360
Martensitic Relief Observation by Atomic Force Microscopy in Yttria-Stabilized Zirconia. (12) 2225

zirconia: yttria-stabilized tetragonal polycrystal
Cubic-Formation and Grain-Growth Mechanisms in Tetragonal Zirconia Polycrystal. (8) 1401
Effect of 2-Phosphonobutane-1,2,4-tricarboxylic Acid Adsorption on the Stability and Rheological Properties of Aqueous Nanosized 3-mol%-Yttria-Stabilized Tetragonal-Zirconia Polycrystal Suspensions. (7) 1106
Raman Investigation of the Nitridation of Yttria-Stabilized Tetragonal Zirconia. (1) 169
Solid-Solution Effects of a Small Amount of Nickel Oxide Addition on Phase Stability and Mechanical Properties of Yttria-Stabilized Tetragonal Zirconia Polycrystals. (3) 523